"A Study to Assess the Stigma, Social Difficulties and its Associated Factors among Cancer Patients at a Tertiary Care Hospital, AIIMS Bhopal."

Dissertation

Submitted to the Faculty of Nursing

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL

In partial fulfillment of the requirement for the degree of M.Sc. in Medical-Surgical Nursing (Oncology Nursing)

by

Ms. Shalini Patel

Enrollment No: 2300083N07P67015

Under the Guidance of

Mrs. Ranjana Verma

Assistant Professor

Nursing College, AIIMS Bhopal

February 2025

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL

UNDERTAKING

I, **Shalini Patel**, M.Sc. Nursing student enrolled in the batch 2023-2025 vide **enrollment No: 2300083N07P67015,** hereby declare that the data submitted for my M.Sc. Nursing dissertation belongs to me and is original. I also certify that I did the work to carry out this study.

The Institute shall not be responsible for any dispute or conflict of interest arising out of this dissertation at any stage.

Shalini Patel

Ms. Shalini Patel

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL

CERTIFICATE

This is to certify that the dissertation entitled ***"A Study to Assess the Stigma, Social Difficulties and its Associated Factors among Cancer Patients at a Tertiary Care Hospital, AIIMS Bhopal"*** is a Bonafide and genuine research carried out by **Ms. Shalini Patel** under the guidance and direct supeivision of **Mrs. Ranjana Verma** (Guide), **Dr. Naseema Shafqat** (Co-guide) and **Dr. Saikat Das** (Co-guide) for the award of M.Sc. Nursing (Medical-Surgical Nursing {Oncological Nursing}).

Guide:

Mrs. Ranjana Verma

Assistant Professor

Nursing College, AIIMS Bhopal

रंजना वर्मा / Ranjana Verma
सहायक प्राध्यापिका / Assistant Professor
नर्सिंग महाविद्यालय / Nursing College
एम्स भोपाल, मध्य प्रदेश - 462020
AIIMS Bhopal, (M.P.) - 462020

Co-guide:

Dr. Naseema Shafqat

Assistant Professor

Nursing College, AIIMS Bhopal

डॉ. नसीमा शफकत / Dr. Naseema Shafqat
सहायक प्राध्यापिका / Assistant Professor
नर्सिंग महाविद्यालय / Nursing College
एम्स भोपाल, मध्य प्रदेश - 462020
AIIMS BHOPAL, (M.P.) - 462020

Dr. Saikat Das

Additional Professor

Department of Radiotherapy, AIIMS Bhopal

डॉ. सैकत दास / Dr. SAIKAT DAS
M.D., Ph.D, MNAMS
अतिरिक्त प्राध्यापक / Additional Professor
रेडियेशन आन्कॉलाजी विभाग
Department of Radiation Oncology
अखिल भारतीय आयुर्विज्ञान संस्थान भोपाल - 462020
All India Institute of Medical Sciences Bhopal - 462020

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL

CERTIFICATE

This is to certify that the dissertation entitled ***"A Study to Assess the Stigma, Social Difficulties and its Associated Factors among Cancer Patients at a Tertiary Care Hospital, AIIMS Bhopal"*** is the work carried out by **Ms. Shalini Patel** under the supervision and guidance of **Mrs. Ranjana Verma** (Guide), **Dr. Naseema Shafqat** (Co-guide) and **Dr. Saikat Das** (Co-guide) in the specialty of Medical Surgical Nursing (Oncology Nursing).

28/2/2025

Dr. Mamta Verma

I/C Principal

Nursing College

AIIMS Bhopal

प्रभारी प्राचार्या/In-Charge PRINCIPAL
नर्सिंग महाविद्यालय/Nursing College
एम्स भोपाल, मध्य प्रदेश-462020
AIIMS Bhopal, Madhya Pradesh-462020

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL

DECLARATION

I hereby declare that the dissertation entitled ***"A Study to Assess the Stigma, Social Difficulties and its Associated Factors among Cancer Patients at a Tertiary Care Hospital, AIIMS Bhopal"*** is a bonafide and original work carried out by me under the supervision and guidance of **Mrs. Ranjana Verma** (Guide), Assistant Professor, Nursing College, AIIMS Bhopal, **Dr. Naseema Shafqat** (Co-guide), Assistant Professor, Nursing College, AIIMS Bhopal and **Dr. Saikat Das** (Co-guide), Additional Professor, Department of Radiotherapy, AIIMS Bhopal. To the best of my knowledge, the dissertation or any part thereof has not formed the basis for the award of any degree/ fellowship or similar title to any candidate of any University.

Shalini Patel

Ms. Shalini Patel

Place: Bhopal

Date: 27/02/25

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL

COPYRIGHT DECLARATION

We hereby declare that **ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL,** shall have the rights to preserve, use, and disseminate this dissertation in print electronic format for academic/ research purposes.

Shalini Patel

Ms. Shalini Patel

Guide

Ranjana

Mrs. Ranjana Verma

Assistant Professor

Nursing College, AIIMS Bhopal

रंजना वर्मा / Ranjana Verma
सहायक प्राध्यापिका/Assistant Professor
नर्सिंग महाविद्यालय/Nursing College
एम्स भोपाल, मध्य प्रदेश-462020
AIIMS Bhopal, (M.P.)-462020

Co-guide

Naseema

Dr. Naseema Shafqat

Assistant Professor

Nursing College, AIIMS Bhopal

डॉ. नसीमा शफक़त/Dr. Naseema Shafqat
सहायक प्राध्यापिका/Assistant Professor
नर्सिंग महाविद्यालय/Nursing College
एम्स भोपाल, मध्य प्रदेश-462020
AIIMS BHOPAL, (M.P.)-462020

Sanked

Dr. Saikat Das

Additional Professor

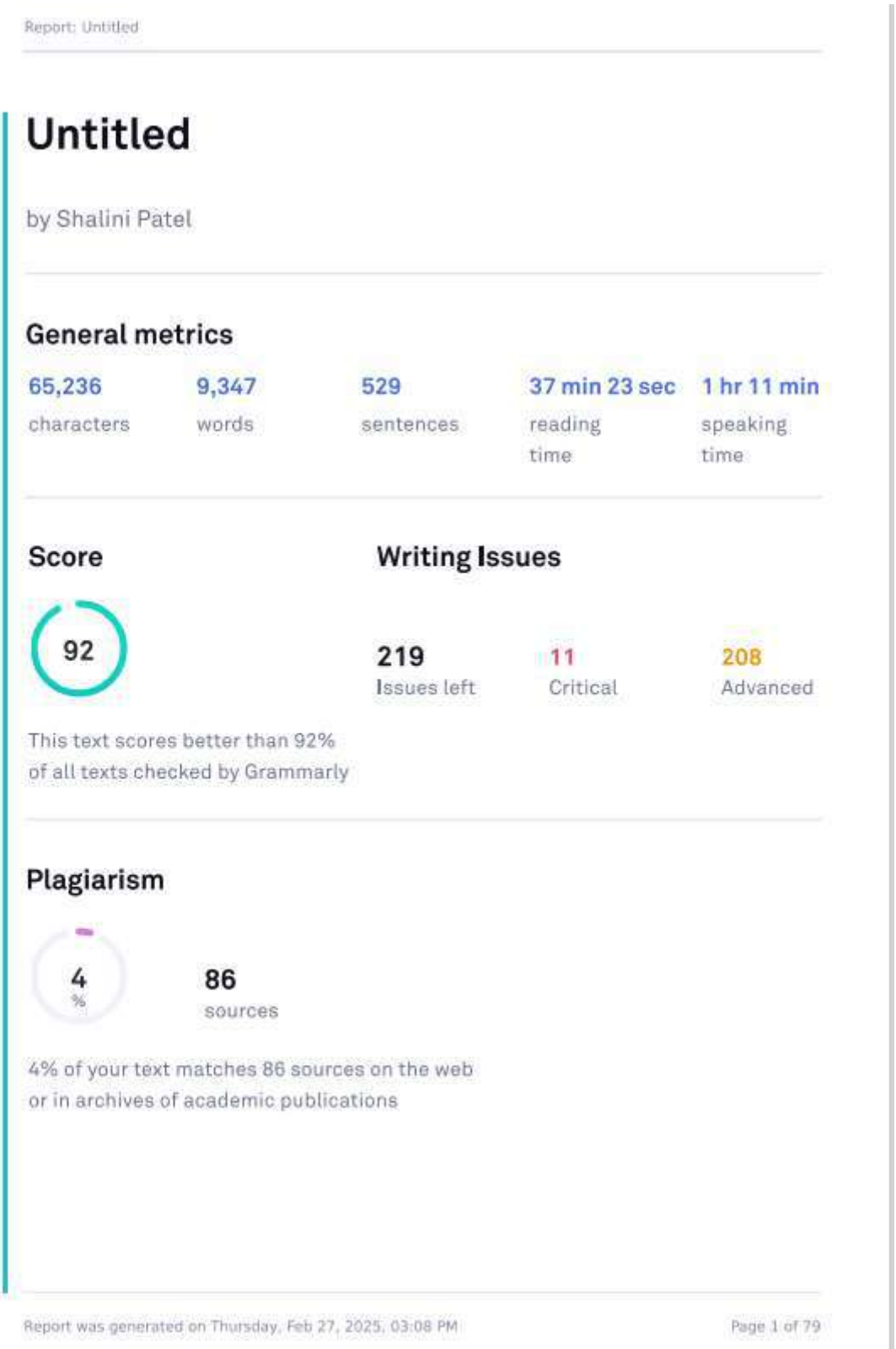
Department of Radiotherapy, AIIMS Bhopal

डॉ. सैकत दास / Dr. SAIKAT DAS
M.D., Ph.D, MNAMS
अतिरिक्त प्राध्यापक/Additional Professor
रेडियेशन आन्कोलाजी विभाग
Department of Radiation Oncology
अखिल भारतीय आयुर्विज्ञान संस्थान भोपाल-462020
All India Institute of Medical Sciences Bhopal-462020

Place: Bhopal

Date: 27/02/25

PLAGIARISM REPORT



Report: Untitled

Untitled

by Shalini Patel

General metrics

65,236	9,347	529	37 min 23 sec	1 hr 11 min
characters	words	sentences	reading time	speaking time

Score

92

This text scores better than 92% of all texts checked by Grammarly

Writing Issues

219	11	208
Issues left	Critical	Advanced

Plagiarism

4 %

86 sources

4% of your text matches 86 sources on the web or in archives of academic publications

Untitled

by Shalini Patel

General metrics

69,999	10,284	928	41 min 8 sec	1 hr 19 min
characters	words	sentences	reading time	speaking time

Score

This text scores better than 94% of all texts checked by Grammarly

Writing Issues

197	32	165
Issues left	Critical	Advanced

Plagiarism

63 sources

3% of your text matches 63 sources on the web or in archives of academic publications

IHEC – SR LETTER OF PERMISSION

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL
Saket Nagar, Bhopal – 462020 (M.P)
Institutional Human Ethics Committee- Student Research (IHEC-SR)
www.aiimsbhopal.edu.in Email: ihecpgr@aiimsbhopal.edu.in

Ref Number: IHEC/SR/2024/16 **Date: 1 Feb 2024**

Letter of Permission

Student Investigator: Shalini Patel Nursing College, Speciality:- Medical surgical nursing (oncology nursing) MSc Nursing	**Guide: Dr. Jisa George T, Assistant Professor, Nursing College, AIIMS Bhopal. Nursing College, Speciality:- Medical surgical nursing (oncology nursing)**	**Co-Guides: Dr. Naseema Shafqat, Assistant Professor, Nursing College, AIIMS Bhopal. Dr. Saikat Das, Additional Professor, Department of Radiotherapy, AIIMS Bhopal.**

AIIMS, Bhopal Institutional Human Ethics Committee- Student Research (IHEC-SR) in its 9th meeting held on 1 Feb 2024 discussed your proposal titled **A Study to Assess the Stigma, Social Difficulties and its Associated Factors among Cancer Patients at a Tertiary Care Hospital, AIIMS Bhopal. .**

Following members attended the meeting:

Sr No.	Name/Post	Role
1.	Prof. Manisha Shrivastava, Prof. & Head, Dept. of Transfusion Medicine, BMHRC, Bhopal	Chairperson
2.	Prof. Rajnish Joshi, Prof. & Head, Dept. of General Medicine, AIIMS Bhopal	Clinician Member
3.	Prof. Amit Agrawal, Prof. & Head, Dept. of Neurosurgery, AIIMS Bhopal	Clinician Member
4.	Prof Sunita Athavale, Prof. & Head, Dept. of Anatomy, AIIMS Bhopal	Pre-Clinical Member
5.	Prof Girish C Bhatt, Professor, Pediatrics , AIIMS Bhopal	Clinical Member
6.	Dr. Sunaina Tejpal Kama, Additional Professor, Dept. of Anesthesiology, AIIMS Bhopal	Clinician Member
7.	Dr. Ujjawal Khurana, Associate Professor, Dept. of Pathology, AIIMS Bhopal	Para -Clinical Member
8.	Mr. Trivesh Goswami, Law Officer, AIIMS Bhopal	Legal Person
9.	Ms. Anjali Singh	Lay Person
10.	Prof. Neelkamal Kapoor, Former Prof & Head, Dept of Pathology, AIIMS Bhopal	Social Scientist
11.	Dr. Ankur Joshi, Additional Professor, Dept. of CFM, AIIMS Bhopal	Member Secretary

The decision of the committee is as follows:

The AIIMS, Bhopal IHEC-SR approves your research protocol. All research related activities must begin only after the date of this approval. The validity of this approval is till two years from the date of issuance. Please submit a closure report / renewal request before expiration of the validity for this approval.

Dr. Ankur Joshi
Member Secretary, AIIMS Bhopal IHEC-SR
Additional Professor, Community and Family Medicine, AIIMS, Bhopal

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

"Gratitude is the fairest blossom that springs from the soul." – Henry Ward Beecher.

Writing the Acknowledgment, the most formidable segment of the dissertation, required translating extensive efforts into concise gratitude. With profound humility and heartfelt appreciation, I take this opportunity to express my deepest gratitude to those who have been my guiding lights throughout this journey. This study is not just the result of my efforts but a reflection of the love, encouragement, and support I have received from remarkable individuals who have stood by me at every step.

First and foremost, my sincerest gratitude goes to the Almighty, whose grace, wisdom, and strength have been my greatest companions. Through every challenge and triumph, His guidance has given me the resilience to move forward with faith and determination.

I would like to dedicate my dissertation to my dearest mother, **Mrs. Ragani Kumari,** and my father, **Mr. Uma Shankar Patel,** who are the cornerstones of my existence; mere words cannot fully convey my appreciation. Their boundless love, selfless sacrifices, and steadfast faith in my aspirations have been my primary source of inspiration. Every advancement I make is founded on the solid support they have provided, and I commit this work to them wholeheartedly.

I am truly grateful to my brother, **Mr. Purushottam Patel**, and **Mr. Uttam Patel**, who are my constant pillars of support; I appreciate your unwavering belief in me and your role as both my quiet supporter and my loudest champion. Your support and confidence in me have inspired my resolve, reminding me that I am always accompanied on this journey.

A special note of gratitude to my destined partner, **Mr. Aman Kumar Prasad**, whose love, patience, and steadfast support have been a source of immense comfort and motivation. Your unwavering belief in me, encouragement in moments of doubt, and quiet strength have been

my anchors through this journey. I look forward to sharing all the successes and challenges of life with you.

It is both an emotional and humbling experience for me to express my deepest gratitude to those who have played a significant role in the success of this dissertation.

With deep respect and genuine gratitude, I express my heartfelt thanks to my former guide, **Dr. Jisa George T,** an Associate Professor at the Nursing College, AIIMS Bibinagar. Ma'am, your insight, support, and counsel have played a crucial role in shaping this research and enhancing my academic journey. Your patience, encouragement, and readiness to address my questions with kindness and clarity have greatly influenced me. Your faith in my capabilities inspired me to persevere, and your steadfast support fostered the determination needed to complete this dissertation. I feel truly privileged to have had the chance to learn from you. Your mentorship has not only sharpened my research abilities but has also imparted lessons on resilience, commitment, and the significance of intellectual curiosity. Even though you are now my former guide, the knowledge and principles you have shared will forever stay with me. Thank you, Ma'am, for your invaluable impact on my academic path and for being such a motivating mentor. This accomplishment reflects your guidance, and I will always be thankful for your support.

I would like to express my heartfelt gratitude to my mentor, **Mrs. Ranjana Verma,** an Assistant Professor at the Nursing College of AIIMS Bhopal. Her extensive knowledge and remarkable guidance have been pivotal in shaping the direction and substance of this research. The wisdom she shares, along with her insightful feedback, has not only motivated me but has also inspired a deeper commitment to refining my work, allowing me to pursue my research with enhanced clarity and purpose.

I am immensely thankful to my co-guide, **Dr. Naseema Shafqat,** an Assistant Professor at the Nursing College, AIIMS Bhopal, as well as to **Dr. Saikat Das,** who holds the position of Additional Professor in the Department of Radiotherapy at AIIMS Bhopal. Their unwavering support and extensive expertise have been essential in strengthening the foundation of my research. They have both shown exceptional patience and offered valuable insights, which have helped guide me through this intricate journey. Their dedication has instilled in me a greater sense of confidence and a more profound understanding of the complexities involved in my work, enabling me to navigate challenges with resilience and clarity.

I sincerely thank **Dr. Ananthan Krishnan**, Senior Resident in Community and Family. Medicine at AIIMS Bhopal, for his valuable time, suggestions, and guidance related to statistics. His input played a major role in completing my study with confidence.

I would like to record my authenticate gratitude to **Dr. Mamta Verma**, I/C Principal, Nursing College, AIIMS Bhopal, for her scholarly guidance from the very early stage of this research, as well as for giving me extraordinary experiences throughout the research process.

I am grateful to the **IHEC-SR** for allowing me to conduct this research study.

I am indebted to pay my tribute to all **faculty members** of Nursing College, AIIMS Bhopal for relentless motivation and warm support with their feedback.

My sincere gratitude to the **Medical Superintendent of AIIMS Bhopal** for allowing me to finish the data collection process.

My grateful acknowledgment to all the experts who validated my tool for their judgment and valuable suggestions, and the participants who are the core of this research study and trusted me and helped me by providing the necessary data.

It is a great pleasure to express my deep gratitude and thanks to my dear friends **Ms. Huzaifa Akram, Ms. Puneeta, Ms. Meritto Mathew,** and **Ms. Nada Pampi** for constant encouragement throughout the research study and the course.

My sincere thanks to the staff of the central library and other non-teaching staff of Nursing College, AIIMS Bhopal, for their immense help and assistance.

Finally, I wish to extend my heartfelt gratitude to everyone who has contributed, directly or indirectly, to the completion of this study. Your kindness, support, and encouragement have meant more than words can express. This journey has been one of growth, learning, and perseverance, and I carry the warmth of your support with me always.

With deep appreciation and heartfelt thanks,

Ms. Shalini Patel

Date:

Place: Bhopal

ABSTRACT

ABSTRACT

BACKGROUND:

Cancer is a major public health issue in India, with around 1.46 million new cases reported in 2022. One in nine people is expected to develop cancer in their lifetime, with lung and breast cancer being the most common among males and females, respectively. By 2025, cases are projected to rise by 12.8% from 2020 levels. Understanding the impact on patients and caregivers is crucial for improving care and social support. Cancer-related stigma is a significant barrier, adding to patients' challenges. This study aims to assess stigma, social difficulties, and associated factors among cancer patients to identify areas for targeted intervention.

MATERIALS AND METHODS:

A cross-sectional study was conducted among 307 cancer patients receiving treatment at All India Institute of Medical Sciences (AIIMS), Bhopal, over approximately two months (from August 5, 2024, to October 12, 2024). Data were collected using a self-structured questionnaire comprising socio-clinical variables, the Cancer Stigma: Patient Version tool, and the Social Difficulties Inventory. Multivariate logistic regression analysis was performed to identify factors associated with high stigma and social difficulties.

RESULT:

Among respondents, 34.53% were aged 40-50 years, 54.72% were females, and 45.60% reported spousal support. Most participants had no family history of cancer. A high level of stigma was reported by 69.06% (212 participants), while 77.52% (238 participants) faced social difficulties. Multivariate analysis showed high stigma is linked to primary education or less ($p = 0.008$, OR = 1.012), rural community ($p = 0.002$, OR = 0.236), maternal/paternal support (p

= 0.046, OR = 0.228), and both chemotherapy and radiotherapy (p = 0.036, OR = 2.590). Social difficulties were associated with unemployment (p = 0.008, OR = 5.296), rural living (p = 0.018, OR = 2.18), head and neck cancer (p = 0.008, OR = 4.95), and surgery (p = 0.001, OR = 3.95). A moderate positive correlation was found between stigma and social difficulties (r_s=0.734, $p<0.001$).

DISCUSSION

This study highlights the stigma and social challenges faced by cancer patients, linked to factors like lower education, rural background, and specific social support. Patients undergoing radiotherapy and those with depression are particularly affected, emphasizing the need for targeted psychological support. Social difficulties also relate to unemployment and rural living, suggesting a need for employment assistance and community interventions. Addressing stigma could alleviate social challenges and vice versa.

CONCLUSION

Awareness campaigns, family-centered counseling, and psychological support are essential to reduce stigma and improve the quality of life for cancer patients. Enhancing healthcare infrastructure in rural areas and offering employment and financial support can alleviate social difficulties. This research emphasizes the need for targeted interventions to address cancer-related stigma and social issues, improving access to care and support for cancer patients in India.

Keywords: Associated Factors, Cancer, Stigma and Social Difficulties.

TABLE OF CONTENTS

S. NO.	CONTENT	PAGE NO.
1.	**CHAPTER-I INTRODUCTION**	
	Background	**1**
	Significance or need of the study	**7**
	Research problem	**8**
	Research questions	**8**
	Aim & Objectives	**9**
	Hypotheses	**9**
	Assumptions	**9**
	Operational definitions	**10**
	Delimitation	**10**
	Conceptual framework	**11**
2.	**CHAPTER-II REVIEW OF LITERATURE**	**16**
3.	**CHAPTER-III MATERIALS AND METHODS**	
	Research approach	**32**
	Research design	**32**
	Research variables	**33**
	Research setting	**33**
	Population	**34**
	Sample	**34**
	Sampling criteria	**34**
	Inclusion and Exclusion criteria	**34**
	Sample size	**34**

	Sampling technique	**35**
	Data collection tools	**35**
	Development & description of the tool	**36**
	Technique of data collection	**40**
	Validity and reliability of the tool	**40**
	Ethical consideration	**42**
	Pilot study	**42**
	Procedure of data collection	**43**
	Plan for data analysis	**43**
4.	**CHAPTER-IV RESULT**	**45**
5.	**CHAPTER-V DISCUSSION**	
	Major findings of the study	**87**
	Discussion	**92**
	Implications of the study	**104**
	Strengths of the study	**106**
	Limitations of the study	**107**
	Recommendations	**107**
	Conclusion	**109**
6.	**REFERENCES**	**110**
7.	**ANNEXURES**	**129**

LIST OF TABLES

S. NO.	TITLE OF TABLE	PAGE NO.
1.	Literature Review Search Strategy	**16**
2.	Frequency and percentage distribution of participants according to their socio-demographic variables.	**46**
3.	Frequency and percentage distribution of participants according to their clinical variables.	**50**
4.	Frequency and percentage distribution of Stigma response among Cancer Patients.	**53**
5.	Frequency and percentage distribution of Social Difficulties response among Cancer Patients.	**56**
6.	Median and range of Stigma and Social Difficulties among Cancer Patients.	**61**
7.	Level of Stigma among Cancer Patients.	**62**
8.	Level of Social Difficulties among Cancer Patients.	**62**
9.	Frequency and percentage distribution of Anxiety among Cancer Patients.	**63**
10.	Frequency and percentage distribution of Depression among Cancer Patients.	**64**
11.	Univariate analysis to find out the factors affecting Stigma among Cancer Patients.	**65**
12.	Multiple logistic regression analysis to find out the factors associated with Stigma among Cancer Patients.	**72**

13.	Univariate analysis to find out the factors affecting Social Difficulties among Cancer Patients.	**75**
14.	Multiple logistic regression analysis to find out the factors associated with Social Difficulties among Cancer Patients.	**83**
15.	Spearman's Correlation Coefficient to find out the relationship between Stigma and Social Difficulties among Cancer Patients.	**86**

LIST OF FIGURES

S. NO.	TITLE OF FIGURE	PAGE NO.
1.	Biopsychosocial model	**11**
2.	A conceptual framework based on the Biopsychosocial model.	**15**

LIST OF ANNEXURES

S.NO	TITLE OF ANNEXURE
1.	Screening tool
2.	Data collection tool (English)
3.	Data collection tool (Hindi)
4.	List of experts
5.	Letter seeking permission for tool validation
6.	Evaluation criteria for validation of the tool
7.	Content validity certificate
8.	Translation certificate (Hindi)
9.	Translation certificate (English)
10.	Letter seeking permission to conduct the study
11.	Participant Information Sheet (English)
12.	Participant Information Sheet (Hindi)
13.	Informed Consent form
14.	Master datasheet

LIST OF ABBREVIATIONS

S.NO	ABBREVIATIONS	EXPANSION
1.	**AIIMS**	All India Institute of Medical Sciences
2.	**CVI**	Content Validity Index
3.	**f**	Frequency
4.	**HOD**	Head of Department
5.	**IHEC-SR**	Institutional Human Ethics Committee- Student Research
6.	**K-S Test**	Kolmogorov-Smirnov Test
7.	**LOP**	Letter of Permission
8.	**M.Sc.**	Masters of Sciences
9.	**N**	Sample Size
10.	**OR**	Odds Ratio
11.	**OPD**	Outpatient Department
12.	**PG**	Post Graduate
13.	**SCVI**	Scale Content Validity Index
14.	**SPSS**	Statistical Package for the Social Sciences

LIST OF SYMBOLS

S.NO	SYMBOLS	EXPANSION
1.	%	Percentage
2.	>	More than
3.	<	Less than
4.	≥	Equal to or more than
5.	H0	Null Hypotheses
6.	H1	Research Hypotheses
7.	p	Level of significance
8.	d	precision
9.	&	And
10.	=	Equal to

CHAPTER I

INTRODUCTION

CHAPTER 1

INTRODUCTION

Background of the study

The release of the report by the International Agency for Research on Cancer (IARC) on February 1, 2022, just ahead of World Cancer Day, represents a significant moment in the understanding of the global cancer landscape. This report is based on an extensive survey involving 185 countries for 36 cancers and utilizing estimates from the Global Cancer Observatory (GLOBOCAN). It provides a comprehensive and sobering overview of the global cancer burden. This report reveals that in 2022, there were approximately 9.7 million cancer-related deaths, a slight decrease from the 9.96 million deaths recorded in 2020, alongside 20 million new cancer cases compared to 19.6 million in 2020[1,2]. These alarming numbers translate into a stark reality for the global population: approximately 1 in every 9 men and 1 in every 12 women were expected to die from Cancer. Looking forward, the projections are even more troubling, with estimates suggesting that the number of cancer cases could exceed 35 million by 2050, indicating a staggering 77% increase from the 20 million cases reported in 2022[3]. This increase in incidence is expected to be especially pronounced in low- and middle-income countries, where the growth rate is projected to reach 142% in countries with a low Human Development Index (HDI) and 99% in those with a medium HDI. Moreover, the mortality rate associated with Cancer in these regions is expected to nearly double by 2050, highlighting the urgent need for improved healthcare infrastructure, enhanced access to quality cancer care, and the development of cost-effective cancer services[4,5].

Global Cancer Burden and Prevention Strategies

According to a report released by the World Health Organization (WHO) on February 3, 2022, Cancer has emerged as the leading cause of mortality worldwide, accounting for nearly 10 million deaths in 2020, representing about one in every six deaths globally. However, the WHO also emphasizes that there is significant hope through preventive measures. They indicate that between 30% and 50% of cancer cases could potentially be prevented by avoiding known risk factors and implementing evidence-based prevention strategies. These strategies include smoking cessation, adhering to a nutritious and balanced diet, engaging in regular physical activity, avoiding harmful environmental and occupational exposures, and receiving vaccinations against viruses known to cause Cancer, such as the Human Papillomavirus (HPV) and Hepatitis B. This focus on cancer prevention is not merely a strategic recommendation but is seen as a vital tool that can profoundly reduce the global cancer burden. Furthermore, early detection through systematic screening and timely diagnosis plays a crucial role in improving the likelihood of successful treatment and survival rates for patients. Therefore, the establishment of effective early detection and screening programs is essential, as they can facilitate the early identification of Cancer, allowing for prompt intervention and more effective disease management[6].

In terms of the most prevalent types of Cancer worldwide in 2022, based on newly diagnosed cases, the data highlights the following: -

- Breast cancer, with 2.26 million newly reported cases;
- Lung cancer, with 2.21 million cases;
- Colon and Rectum cancers account for 1.93 million cases;
- Prostate cancer, with 1.41 million new cases;
- Skin cancer (non-melanoma) contributing to 1.20 million cases;

- Stomach cancer, with 1.09 million reported cases.

On the other hand, the leading causes of cancer-related deaths in 2020 were notable:

- Lung cancer, which resulted in 1.80 million fatalities;
- Colon and Rectum cancers contributing to 916,000 deaths;
- Liver cancer, with 830,000 deaths;
- Stomach cancer accounted for 769,000 fatalities;
- Breast cancer, which led to 685,000 deaths[7].

Cancer Burden In India

The National Cancer Registry Programme, a government-led initiative that systematically collects and disseminates data on cancer incidence and mortality across India, reported that the estimated number of new cancer cases in the country for the year 2022 was 1,461,427, resulting in a crude incidence rate of 100.4 per 100,000 individuals. Alarmingly, it is estimated that one in every nine people in India is likely to develop Cancer at some point in their lifetime. Among males, lung cancer was identified as the leading form, while breast cancer was the most common among females. Furthermore, projections indicate a 12.8% increase in the incidence of cancer cases by 2025 when compared to data from 2020[8].

The Impact of Cancer on Patients and Society

Receiving a diagnosis of Cancer is often a transformative and devastating experience for individuals. It represents one of the most profound challenges and sources of anxiety that they may ever encounter, as Cancer is considered a life-threatening disease. The implications of a cancer diagnosis extend far beyond just physical symptoms; it can disrupt

a person's entire life, leading to a variety of biological and psychosocial difficulties that result in significant physical and psychological distress[9,10]. This reality emphasizes the critical need for a holistic support system that addresses not only the physical challenges presented by Cancer but also the psychological and social issues that patients and their families face throughout the treatment process.

The global burden of Cancer is increasing, with rising incidence and mortality rates. India is experiencing a notable epidemiological transition characterized by an increase in chronic diseases, including Cancer. In India, there are significant rates of breast, cervical, and ovarian cancers in women and oral, lung, and stomach cancers in men, with over 1.1 million new cancer cases and nearly 800,000 cancer-related deaths reported in 2018[8]. Given these alarming statistics in India, it is essential to comprehend the impact of Cancer on patients and their caregivers to enhance access to care and social support[11].

One of the major obstacles to cancer care and support is the stigma associated with the disease. Perceived stigma constitutes the shame and fear of discrimination that cancer patients frequently face, resulting in social exclusion and the denial of basic welfare rights[12]. The stigma related to Cancer is complex, stemming from myths, misconceptions, and cultural beliefs. Common factors contributing to this stigma include fears of incurability, suffering, pain, loss of autonomy, helplessness, isolation, financial burdens, and death[13,14]. Cancer remains a taboo subject in certain regions of Asia and is often misunderstood by society[15]. Despite progress in medical knowledge and technology, negative stereotypes about Cancer persist, exacerbating social stigma [16]. This stigma and negative attitudes towards Cancer discourage individuals from disclosing their condition to neighbors or acquaintances, and it not only impacts patients and their families but also undermines treatment, prevention strategies, screening, and early detection initiatives,

necessitating attention from both policymakers and healthcare providers[17,18]. This issue is particularly critical in low- and middle-income countries like India, where health literacy is lacking and access to cancer care is restricted. Although governmental efforts have been made to diminish stigma, additional initiatives are necessary. Families and communities must collaborate with the healthcare system to play a crucial role in reducing the stigma surrounding Cancer [19,20]. In India, many cancer patients hold the belief that individuals bring Cancer upon themselves by violating social norms, either in their current life or a previous one (i.e., Karma), or that they develop breast cancer as a result of having a "bad character." Physical changes (disfigurement) resulting from Cancer and its treatment can also lead to stigma. A lack of understanding regarding the causes of Cancer and the fear that it is contagious have also been recognized as contributing factors to stigma in India[21,22]. The expressions of cancer stigma in India can include social isolation, rumors, verbal abuse, diminished marriage opportunities (for themselves or their children), and physical separation within households, such as distinct dining areas and the segregation of personal effects, utensils, clothing, and living spaces. The fear of rejection and social ostracism stemming from stigma leads to reduced social support, poorer emotional health, and adverse health outcomes for patients.

Cancer-related stigma has a significant impact on the emotional and behavioral well-being of patients, making it essential for healthcare teams to be aware of this issue. The diagnosis and treatment of Cancer often disrupt the daily lives of patients, affecting family dynamics, employment, income, leisure pursuits, and interactions with healthcare providers[23–27]. With advances in medical technology and the rise of outpatient care, hospital stays have become shorter, and home-based care is increasingly common for cancer patients. This shift places more responsibility on patients and their families to navigate the social challenges that arise during treatment[28].

Cancer patients frequently encounter difficulties such as a diminished self-image, altered body image and sexuality, and strained social relationships while managing the daily realities of the disease. In India, many cancer patients receive diagnoses at advanced stages due to financial limitations, low health literacy, and minimal access to healthcare facilities and treatments[29]. Furthermore, the burdens related to caregiving and the health effects on caregivers of cancer patients are substantial. Two notable challenges oncology healthcare professionals face are enhancing patient-doctor communication and overcoming burnout[30]. Importantly, if these healthcare providers were fully cognizant of the psychosocial struggles faced by cancer patients, survivors, and caregivers and responded appropriately, it could lead to improved outcomes for everyone involved[31].

In summary, Cancer is not merely a medical issue; it is a complex and multifaceted matter that impacts patients physically, emotionally, socially, and psychologically. The effects extend beyond the individuals to their families, caregivers, and entire communities, affecting relationships, financial security, and mental health. Examining the stigma and social challenges encountered by cancer patients can offer significant insights into the broader societal struggles they face, including discrimination, isolation, and emotional pain. Recognizing these challenges enables the creation of targeted interventions that provide better support systems, diminish stigma, and nurture a more inclusive and understanding atmosphere. Tackling these challenges is vital for enhancing the overall quality of life for cancer patients and their families and also plays a key role in improving the effectiveness of cancer treatment, care, and prevention efforts. By fostering a more supportive and knowledgeable society, we can alleviate the burden of Cancer and promote comprehensive well-being for those impacted.

NEED OF THE STUDY

The study on stigma, social difficulties, and its associated factors among cancer patients addresses several significant needs:

1. **Patient Well-being:**

   Understanding stigma and social difficulties can lead to interventions that enhance the overall well-being of cancer patients by tackling psychosocial issues[32].

2. **Healthcare Quality Improvement:**

   Recognizing related factors aids healthcare providers in customizing support services, thereby improving the quality of care and assistance given to cancer patients[12].

3. **Reducing Stigma:**

   Exploring stigma can guide strategies aimed at diminishing societal biases against cancer patients, creating a more supportive and empathetic environment[12].

4. **Enhancing Support Services:**

   Gaining insights into social challenges can steer the development of specialized support services that address needs like social engagement, workplace adjustments, and psychological aid[33].

5. **Patient-Centred Care:**

   Appreciating patient experiences encourages the promotion of patient-centered care, ensuring healthcare decisions and support align with the distinct challenges faced by individuals with Cancer[34,35].

6. **Policy Development:**

The research outcomes can direct the formulation of policies that address the psychosocial needs of people living with Cancer. This may involve advocating for anti-stigma initiatives, establishing workplace adjustments, or guaranteeing access to mental health support services[12].

7. **Public Awareness:**

The research can aid in increasing public awareness concerning the obstacles faced by cancer patients, nurturing a more compassionate and informed society[13].

RESEARCH PROBLEM

A study to assess the Stigma, Social Difficulties, and its Associated Factors among Cancer Patients at a Tertiary Care Hospital, AIIMS Bhopal.

RESEARCH QUESTIONS

1. To what extent do cancer patients experience stigma?
2. What social difficulties are prevalent among individuals diagnosed with cancer?
3. What are the associated factors contributing to stigma among cancer patients?
4. What factors are associated with social difficulties in cancer patients?
5. Is there any relationship between stigma and social difficulties among cancer patients?

AIM OF THE STUDY

The study aimed to assess the Stigma, Social difficulties, and its Associated Factors among Cancer patients.

OBJECTIVES OF THE STUDY

I. To assess the level of stigma and social difficulties among cancer patients.
II. To find out the factors associated with stigma and social difficulties among cancer patients.
III. To find out the relationship between stigma and social difficulties among cancer patients.

HYPOTHESES

Null Hypotheses(H0)

There is no significant relationship between the perceived stigma and social difficulties among cancer patients.

Research Hypotheses(H1)

There is a significant relationship between the perceived stigma and social difficulties among cancer patients.

ASSUMPTIONS

- Stigma and social difficulties may be there among cancer patients.
- Stigma, social difficulties, and its associated factors may vary from person to person.

OPERATIONAL DEFINITIONS

1. **Stigma**: In this study, stigma refers to Perceived societal discrimination, negative attitudes, or stereotypes towards individuals with cancer, and it was measured using the 'Cancer stigma: Patients version scale.

2. **Social Difficulties**: In this study, social difficulties refer to the Challenges faced by cancer patients in everyday living, financial services, interpersonal relationships, work, and daily life due to their cancer diagnosis, and it was assessed using the 'social difficulties inventory.

3. **Cancer Patients:** In this study, cancer patients refer to Patients who were confirmed diagnosed with cancer at least 3 months before, must be over 18 years of age, and must be taking treatment at AIIMS Bhopal.

4. **Associated Factors:** In this study, the various factors that are responsible for high levels of stigma and social difficulties among cancer patients include Age, Gender, Level of education, Occupational Status, Socioeconomic status, Type of Residence, Religion, Marital Status, Type of family, Family Support, Type of cancer, Duration of illness, Cancer stage, Comorbid diseases, Treatment type, psychological well-being(anxiety/depression).

DELIMITATIONS

This study is delimited to the Oncology Department of All India Institute of Medical Sciences (AIIMS) Bhopal, a leading tertiary care hospital in India with a significant patient population and a diverse socio-economic and cultural background.

CONCEPTUAL FRAMEWORK

The Biopsychosocial Model

The biopsychosocial model (2020) is an interdisciplinary model examining the interconnection between biology, psychology, and socio-environmental factors. Its founder, George L. Engel (1977), asserted that the biopsychosocial model reveals the development of illness through the interaction of genetic and biochemical factors; psychological factors: mood, personality, and behavior; and social factors: cultural, familial, socioeconomic, and medical. Figure 1 illustrates the biopsychosocial model[36].

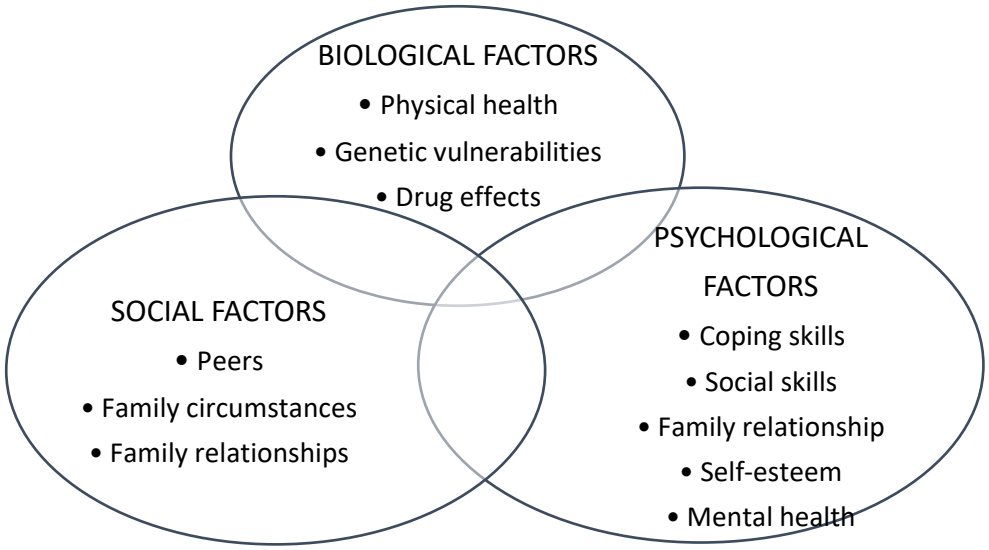


Figure 1: Biopsychosocial model (Biopsychosocial model, 2020)

According to Engel (1977), as illustrated in Figure 1, the model depicts the interaction of biological, psychological, and social factors in determining the health outcome. Other authors like Nadir, Hamza, and Mehmood (2018) concur that the biopsychosocial model has been a foundation in the ideal practice of modern medicine. Engel developed the bio-psychosocial model as an alternative to the biomedical model that physicians readily used. He was of the view that the biopsychosocial model would make it easier for health professionals to understand better their patients' subjective view of their illness and suffering[37].

The strengths of the biopsychosocial model found in research in no particular order were Improved patient satisfaction, better adherence to prescriptions, more maintained behavior change, better physical and psychological health, and less of a tendency to initiate malpractice litigations. Reducing multiple visits and admission into hospitals and improving communication between health status and the patients leads to the development and application of psychosocial support for terminally ill patients and their families, as well as the development of psychological techniques in the strengthening of immune reaction to illness. Also, the development of programs of life quality improvement for chronic patients, physically disabled individuals, and elderly patients[37–39].

The biopsychosocial model shows great potential to improve patient satisfaction, prescription adherence, and physical and psychological health.

Application of the Biopsychosocial Model in the Current Study depicts the interaction of factors in determining the health outcome, which are:

1) **Biological Factors (Clinical Variables):**

This involves considering not only the medical diagnosis of cancer but also the clinical symptoms and treatment effects associated with it. Cancer patients often experience physical changes due to the illness or its treatment (e.g., hair loss from chemotherapy, fatigue, surgical scars), which may contribute to stigma and social difficulties. In the current study, we assess how factors like:

- Type of cancer (head and neck, breast, gynecological, etc.),
- Stage of cancer (early vs. advanced),
- Duration of illness,
- Presence of comorbid conditions,

- Treatment types (chemotherapy, radiotherapy, surgery) influence patients' perceived stigma and social difficulties.

2) Psychological Factors (Stigma as a Mediator):

This component examines the mental and emotional responses of cancer patients regarding their condition. Psychological distress, self-stigma, and fear of social rejection are commonly reported among cancer patients, influencing their overall mental well-being. In the present study, we explore:

- Patients' perception of stigma (whether they feel labeled, judged, or discriminated against),
- Fear of others' reactions (embarrassment, fear of pity, or workplace discrimination),
- Emotional distress (anxiety, depression, or feelings of hopelessness due to stigma),
- Coping mechanisms (whether they isolate themselves, seek support, or engage in positive mental health strategies).

3) Social Factors (Social Difficulties as an Outcome):

This component evaluates the broader social consequences of cancer and stigma, focusing on interpersonal relationships, financial stability, and social roles. Social difficulties arise when cancer patients face discrimination, isolation, or financial struggles, impacting their ability to maintain regular social interactions. In this study, we examine:

- Challenges in relationships (family, spouse, workplace, and community interactions),

- Financial difficulties (loss of job, increased medical expenses, problems accessing financial aid),
- Reduced participation in social activities (withdrawal due to stigma or treatment side effects),
- Communication struggles (hesitation in discussing illness due to fear of judgment).

4) Interrelationship Between Stigma and Social Difficulties:

- The relationship between stigma and social difficulties is bidirectional—patients experiencing high stigma are more likely to have higher social difficulties, and vice versa.
- Cancer patients who perceive more significant stigma may avoid social interactions, leading to increased isolation and financial difficulties.
- Patients with strong family support and financial stability may experience lower stigma and social difficulties than those lacking these resources.

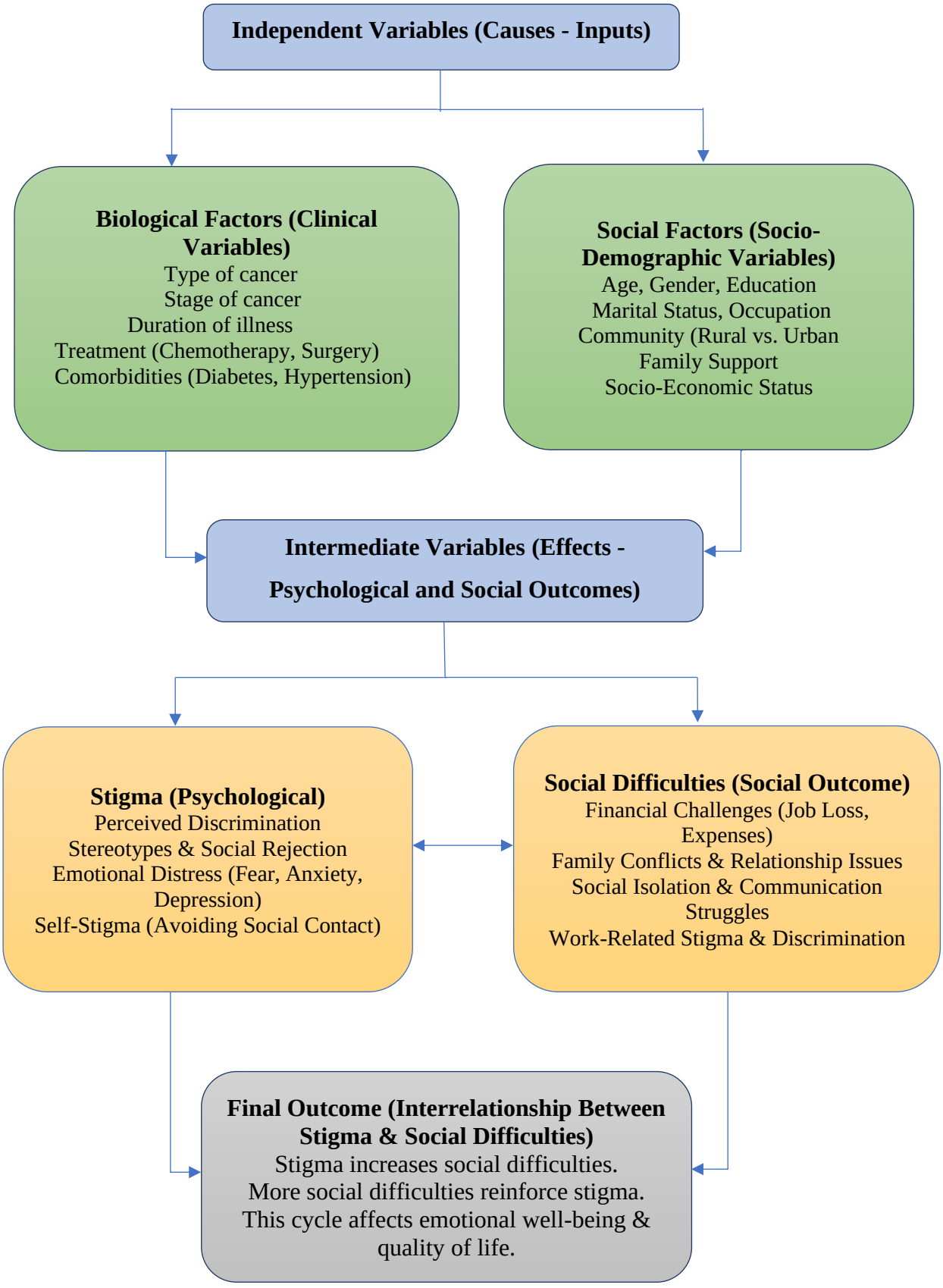

Independent Variables (Causes - Inputs)
Biological Factors (Clinical Variables)
Type of cancer
Stage of cancer
Duration of illness
Treatment (Chemotherapy, Surgery)
Comorbidities (Diabetes, Hypertension)
Social Factors (Socio-Demographic Variables)
Age, Gender, Education
Marital Status, Occupation
Community (Rural vs. Urban
Family Support
Socio-Economic Status
Intermediate Variables (Effects - Psychological and Social Outcomes)
Stigma (Psychological)
Perceived Discrimination
Stereotypes & Social Rejection
Emotional Distress (Fear, Anxiety, Depression)
Self-Stigma (Avoiding Social Contact)
Social Difficulties (Social Outcome)
Financial Challenges (Job Loss, Expenses)
Family Conflicts & Relationship Issues
Social Isolation & Communication Struggles
Work-Related Stigma & Discrimination
Final Outcome (Interrelationship Between Stigma & Social Difficulties)
Stigma increases social difficulties.
More social difficulties reinforce stigma.
This cycle affects emotional well-being & quality of life.

Figure 2: Conceptual framework based on Biopsychosocial model.

CHAPTER II

REVIEW OF LITERATURE

CHAPTER 2

REVIEW OF LITERATURE

This chapter focuses on the review of research studies pertinent to the current investigation, which aims to provide a comprehensive understanding of the impact of stigma on cancer patients.

An extensive literature search has been done in various search databases like PubMed, Google Scholar, Scopus, ResearchGate, and ScienceDirect, using the keywords stigma, social difficulties, factors, and cancer etc.

Table 1: Literature Review Search Strategy

Databases/Platforms	• PubMed • Scopus • ResearchGate • Google Scholar • ScienceDirect
Key Words	• Cancer • Stigma • Perceived Stigma • Attitude toward cancer

	• Social Difficulties • Social Challenges • Social Distress • Stigma-related factors • Social Difficulties related factors • Psychosocial factors influencing Stigma • Psychosocial factors influencing Social Difficulties	
Boolean Operators	AND, OR, NOT	
Total Researches Found	33	
Studies Included and Excluded	**Included:** 25 Cross-sectional studies: 15 Qualitative studies: 5 Health Surveys: 4	**Excluded:** 8 • Studies published before 2000. • Articles that didn't match the objectives. • Studies not available in English.

In the present study, a review of the literature is presented under the following heading:

1) Studies related to the burden of cancer.
2) Studies related to perceived Stigma, Social Difficulties, and its Associated Factors among Cancer Patients.

1) Studies related to the burden of Cancer

- According to the report based on the GLOBOCAN database, the IARC's 2022 findings indicate that there were 9.7 million cancer-related fatalities in 2022 (compared to 9.96 million recorded in 2020) and 20 million new cancer diagnoses (up from 19.6 million in 2020). It was anticipated that 1 in 9 men and 1 in 12 women will succumb to cancer. Additionally, it is projected that by 2050, there will be over 35 million new cancer cases, which reflects a 77% rise from the estimated 20 million cases in 2022, with the most significant increase in incidence observed in low HDI countries (142% rise) and medium HDI countries (99%). Furthermore, cancer mortality is expected to double in these countries by 2050 nearly. In India, there were 1,413,316 new cancer cases and 916,827 cancer-related deaths, alongside 3,258,518 prevalent cancer cases (5-year) reported in 2022[1].

- As per the WHO report dated February 3, 2022, cancer ranked as a major cause of death globally, resulting in almost 10 million deaths in 2020, equivalent to nearly one in six fatalities. However, between 30% to 50% of cancer cases could be prevented by steering clear of risk factors and applying evidence-based preventive measures. The burden of cancer can also be alleviated through early detection and appropriate treatment and care for individuals diagnosed with cancer. There is a high likelihood of

curing many cancers if they are detected early and treated correctly. The rate of cancer mortality decreases when cases are identified and treated at an early stage, with early detection encompassing two elements: early diagnosis and screening[40].

- Based on the report by the National Cancer Registry Programme, India, the projected number of new cancer cases in India for 2022 was 1,461,427 (crude rate: 100.4 per 100,000). In India, one in nine individuals is expected to develop cancer during their lifetime. Lung and breast cancers were identified as the most common types in men and women, respectively. Among cancers in children (ages 0-14), lymphoid leukemia was the most prevalent type (29.2% in boys and 24.2% in girls). The number of cancer cases is forecasted to rise by 12.8% in 2025 compared to 2020[8].

2) Studies related to perceived Stigma, Social Difficulties, and its Associated Factors among Cancer Patients.

- A study was carried out on 'Cancer and Stigma: Current Situation and Challenges in India.' This research highlighted that India is experiencing a notable shift in its health profile, with an increase in chronic diseases like cancer. A key component of this issue is the societal stigma and negative attitudes linked to cancer. This not only obstructs the care and treatment of individuals diagnosed with cancer but also complicates prevention strategies. This situation is especially concerning in a low- and middle-income country such as India, where health literacy is low and access to cancer care is limited. Although government initiatives and some positive developments have taken shape to fight stigma, significant efforts are still needed to tackle this issue. Families and communities must work closely with the healthcare system to help reduce the stigma associated with cancer[19].

- A correlational research study was performed in the middle-income country of Turkey involving 303 adult cancer patients treated in an outpatient clinic, utilizing a convenience sampling method; this research aimed to assess the levels of depression in adult oncology patients during their treatment phase and to identify cancer-related stigma and its influencing factors on their depression levels. This study found a positive correlation between depression and attitudes towards cancer. The predictive factors for depression were "being younger than 40 years old" and "feelings of social exclusion," which contributed to 4% of the total variance. Four factors reflecting negative attitudes towards cancer were "being older than 60 years," "higher educational attainment," "low income," and "feelings of social exclusion," which accounted for 11% of the total variance; cancer-related stigma, which influences patients' emotional and behavioral perspectives, should be alleviated among cancer patients. Healthcare team members should be vigilant regarding cancer-related stigma[41].

- A cross-sectional study was conducted at a comprehensive cancer center in India and included women (n = 134) undergoing surgical procedures for breast cancer, aiming to explore the connections between high stigma levels in women diagnosed with breast cancer. The findings showed that 27.6% of women selecting breast conservation surgery (BCS) experienced high stigma levels, and elevated stigma was linked to lower educational qualifications, choosing BCS over mastectomy, having an anxiety disorder, and experiencing depression. This study concluded that women with breast cancer should be assessed for both distress and stigma. Those opting for BCS may still have unmet emotional needs after surgery and should have access to psychological support to address stigma, emotional symptoms, and body image concerns[42].

- A cross-sectional study took place at the Department of Stomatology, Shengjing Hospital of China Medical University, and Stomatology Hospital of China Medical University in Liaoning Province, China, from May 2016 to October 2017, involving 230 patients with oral cancer. The aim of the study was to evaluate the quality of life (QoL) and explore the impact of stigma, hope, and social support on the QoL of Chinese oral cancer patients. The findings indicated that, in general, patients with oral cancer in China experience a low quality of life. Stigma was found to have a significant and negative correlation with QoL, while hope and perceived social support were connected positively with QoL. It is essential to address the psychological conditions of oral cancer patients and to implement adequate interventions based on positive psychological resources to enhance their quality of life[43].

- A phenomenological study investigated the experiences of cancer stigma among selected individuals living with cancer in both rural and urban Zimbabwe from May 2014 to December 2014. This research focused on the expressions of self-stigma and enacted stigma within a group of 20 individuals diagnosed with cancer. The study uncovered five themes relating to stigma, highlighting the intricate, pronounced, and diverse forms of stigma that are embedded in the prevailing sociocultural context. These findings provide valuable conceptual frameworks and empirical insights into health-related stigma, which could assist in nursing practices and in developing educational initiatives to address health stigma[44].

- A qualitative study examining stigma related to cervical and breast cancer was conducted in Karnataka, a southern state in India, between November 2013 and May

2014. In the breast cancer aspect, 59 in-depth interviews were conducted with patients, primary caregivers, and healthcare professionals. For the cervical cancer component, 147 interviewees included older and younger women, husbands, healthcare providers, and community leaders. This research revealed three primary themes that drove the expressions of cancer stigma: fear of casual transmission of cancer, the perception of personal responsibility for developing cancer, and the belief in and anxiety about the certainty of disability and death following a cancer diagnosis. The study concluded that cancer stigma, in its various forms, was prevalent within these communities and was a feared consequence of a cancer diagnosis, acting as a barrier to screening, early diagnosis, and treatment seeking for women exhibiting symptoms[22].

- An interviewer-administered, in-person survey was conducted among adults diagnosed with cancer and their caregivers in Chennai and Delhi, India, from December 2017 to February 2018, involving a total of 56 cancer patients in the sample: 25 from Chennai and 31 from Delhi. From these patients, we intentionally selected 20 individuals—10 from Chennai and 10 from Delhi—to investigate the extent to which cancer stigma is perceived, experienced, and internalized by adults living with cancer and their primary caregivers. The findings of this study indicated that 85 percent of patients and 75 percent of caregivers reported encountering some form (i.e., affirmative response to at least one of the questions) of perceived, experienced, or internalized stigma. Both patients (85 percent) and caregivers (65 percent) believed that community members harbored at least one stigmatizing belief or attitude toward individuals with cancer. Approximately 60 percent of patients indicated that they faced stigma, and more than one-third of both patients and caregivers had experienced internalized stigma[18].

- A cross-sectional online study was carried out from 2010 to 2016 involving 259 patients who were diagnosed with cancer within the past five years. The objective was to identify social issues associated with cancer from the viewpoints of both the patients and their spouses, as well as to compare and analyze discrepancies in their experiences. The results demonstrated that while patients scored higher in most categories, young spouses aged 39 or younger and female spouses reported difficulty scores comparable to those of the patients across many categories, highlighting the need for healthcare providers to adequately address the concerns of both patients and their spouses, particularly young and female ones. In essence, it was deemed essential to modify the intervention approach based on age and gender and to provide support at the time of diagnosis rather than during the later stages of cancer[45].

- A descriptive cross-sectional study was undertaken from February to August 2017 at the Komfo Anokye Teaching Hospital (KATH) in Ghana, focusing on 202 women with a confirmed diagnosis of breast cancer (BC). The purpose of this study was to investigate the difficulties, coping mechanisms, and support systems experienced by women diagnosed with BC in Ghana. The findings revealed that religious coping was the most frequently used active coping strategy, while humor was the least used. In terms of avoidant coping strategies, self-distraction was the most commonly adopted, whereas substance use was the least favored. Spouses and children provided the greatest level of support to women with BC; having support from five or more sources correlated with higher average scores in both active and avoidant coping compared to having fewer than two sources of social support. This study illustrates that women diagnosed with BC in Ghana employ a variety of coping strategies to manage their challenges, and the degree of social support they receive influences the coping

strategies they adopt. Therefore, incorporating psychosocial counseling and support should be a fundamental component of BC treatment, and exploring and integrating social networks could significantly contribute to the management of BC in Ghana[46].

- A comparative, descriptive cross-sectional study was conducted from February to June 2016 at the King Hussan Cancer Centre (KHCC), a specialized tertiary care hospital located in the capital of Jordan, involving 226 cancer patients. The objective was to evaluate the extent of emotional distress, anxiety, and depression, as well as social difficulties and their impact on the quality of life of cancer patients. The results highlighted that both anxiety and depression were prevalent among Jordanian cancer patients, with depression emerging as the primary emotional issue, showing a higher prevalence compared to anxiety (67.6% vs. 43%). Patients experiencing anxiety or depression were more likely to report lower quality of life scores and higher symptom complaint scores, in addition to facing social difficulties in daily life. Logistic regression analysis revealed that older patients with high depression scores were likely to have lower overall quality of life scores and higher scores for social difficulties[47].

- Another descriptive cross-sectional study was carried out involving 142 cancer patients who were selected through a convenience sampling method in two hospitals associated with Shahid Beheshti Medical University. This research aimed to assess stigma and the factors associated with it in cancer patients in Iran. The findings indicated that stigma related to both the perceived impossibility of recovery and the stereotypical views of cancer was prevalent. These results can inform interventions and educational initiatives focused on cancer awareness, which may facilitate treatment, rehabilitation, and reintegration into normal life[48].

- A cross-sectional study was performed between December 2017 and May 2018 involving 103 breast cancer survivors attending an outpatient clinic at a tertiary cancer center in southern China to examine stigma and its influencing factors among survivors. The study found that the stigma faced by breast cancer survivors, influenced by various socio-cultural elements, is a significant issue that requires attention. Consequently, healthcare providers should develop effective strategies to mitigate stigma within this population by enhancing their self-efficacy, promoting acceptance of the illness, addressing issues related to poor body image and negative coping strategies, and encouraging greater support from spouses and medical personnel[49].

- A latent profile analysis was performed from June 2021 to February 2022 to identify profiles of social constraints experienced by Chinese breast cancer patients and to examine the variables linked with these patterns. A total of 133 Chinese breast cancer patients from Liaoning Province, China, participated in the study. Three distinct latent patterns of social constraints were identified: class 1 consisted of the low social constraints group (51.9%); class 2 represented the moderate social constraints group (35.3%); and class 3 comprised the high social constraints group (12.8%). Patients who enjoyed high levels of social support were more inclined to report lower levels of social constraints, while those with a heightened fear of progression were more likely to report moderate or high levels of social constraints. Notable differences were found among the identified latent classes in terms of educational background in relation to social constraints. These findings indicate that breast cancer patients' perceptions of social constraints vary and are influenced by individual differences. It is essential for healthcare providers to take into account patients' fear of progression and their social

support networks when designing interventions for individuals exhibiting high levels of social constraints[50].

- In 2010, a nationwide survey was carried out at the National Cancer Center and nine regional cancer centers in Korea involving 466 cancer patients. The purpose of this study was to assess the potential link between cancer stigma and depression among cancer patients. Cancer stigma was evaluated using a set of 12 questions categorized into three areas—the impossibility of recovery, stereotypes concerning cancer patients, and experiences of social discrimination. Depression was measured with the Hospital Anxiety and Depression Scale. The findings indicated that more than 30% of cancer survivors held negative views about the illness, and patients who encountered or experienced cancer stigma were 2.5 times more likely to suffer from depression compared to those with positive attitudes[51].

- An exploratory qualitative study was conducted in a cancer hospital located in the suburbs of Paris (Villejuif). Thirty-five patients were interviewed either prior to or following their consultation with a specialist after being aware of their breast or lung cancer diagnosis for at least one year. This study investigated how patients respond to hair loss resulting from chemotherapy. It was found that the majority of women in the sample perceive hair loss as an encounter with a severe and potentially fatal illness. To cope with this situation, they adopt strategies aimed at concealing and camouflaging their stigma. The primary method used is to wear a wig, with several levels of camouflage: partial camouflage, where the wig is consistently worn around those unaware of their situation, and total camouflage, which includes wearing it in front of those who are aware[52].

- An exploratory qualitative study was carried out in the oncology department at Liaocheng Peoples Hospital in China, where 17 patients were purposively chosen to examine and describe their experiences of stigma and coping strategies associated with lung cancer. The findings of the study identified three main thematic elements from the interview data: (1) sources of stigma, including factors such as smoking, reduced work capacity, difficulties in self-care and family support, damage to self-esteem, and symptoms like coughing and expectoration; (2) stigma experiences, which encompassed feelings of stigma, regret, loss of dignity, feelings of uselessness, social isolation, perceived exclusion, rejection, and discrimination; and (3) coping strategies, such as hiding the illness, limiting social interactions, seeking medical help, adhering to treatment regimens, and expressing dissatisfaction, highlighting the presence of perceived stigma among lung cancer patients. Future research should address the stigma linked to lung cancer and its associated factors[53].

- A prospective cross-sectional survey was conducted in Poland involving 310 lung cancer patients treated at the Lower Silesian Oncology Centre. This study aimed to evaluate the influence of loneliness on the functionality, nutritional status, and quality of life of lung cancer patients, who were asked to complete several questionnaires: Mini-MAC, HADS-M, MNA, EORTC QoL, AIS, and VAS. The results indicated that lonely patients faced significant challenges in accepting their illness and exhibited higher levels of depression. The factors most strongly correlated with loneliness included being unemployed, being aged 61 or older, and having lower scores in constructive coping strategies[54].

- A qualitative study was performed using narrative interviews with 45 individuals diagnosed with lung cancer to investigate their financial concerns, perceptions, and experiences related to claiming benefits in the United Kingdom. The findings revealed that some patients were unaware of their eligibility for financial benefits, while others found the claim forms to be complex or were not informed that significant allowances could not be backdated. Some individuals experienced difficulties in securing essential benefits to which they were entitled. Patients who had not yet reached retirement age expressed a desire to continue working, and many were surprised by the challenges involved in obtaining the necessary information for making claims[55].

- A cross-sectional study was carried out among 178 HNC patients attending the outpatient radiation department of a medical facility in Northern Taiwan. The objective of this study was to evaluate perceived body image, levels of depression, physical and psychosocial functioning, and self-stigmatization, as well as to pinpoint factors that influenced feelings of shame and stigma in individuals with head and neck cancer (HNC). This research found that shame and stigma had a positive correlation with a longer duration since finishing treatment, greater concerns about body image, and elevated levels of depression. They were inversely associated with being male and exhibiting lower physical functioning. Multiple regression analysis indicated that being female, a longer period since the conclusion of treatment, increased body image concerns, heightened depression, and diminished physical functioning were predictors of increased shame and stigma[56].

- In December 2012, a web-based survey was conducted with 628 Japanese cancer survivors, focusing on the prevalence and contributing factors of perceived cancer-

related stigma among these individuals. The results indicated that 61.2% of participants reported experiencing perceived cancer-related stigma. This stigma was significantly linked to quality of life, psychological distress, and perceived social support. Logistic regression analysis revealed that younger cancer survivors (odds ratio = 0.96), those with lower income (odds ratio = 2.49), individuals with poorer performance status (odds ratio = 2.33), and those with breast, urinary, or gynecological cancers (odds ratios of 4.27, 4.01, and 4.01, respectively) were at an increased risk for perceived cancer-related stigma[57].

- A cross-sectional study utilizing a convenience sampling method was conducted among 937 breast cancer survivors (BCSs) at the Shanghai Cancer Rehabilitation Club from March to April 2021. This study aimed to investigate the relationship between the types and number of comorbidities and the stigma experienced by breast cancer survivors. All participants were requested to complete an online questionnaire incorporating the 8-item Stigma Scale for Chronic Illnesses (SSCI-8) and questions regarding their sociodemographic details and health status. The findings showed that nearly 70% of the participants had one or more comorbid conditions. Participants with stroke, digestive disorders, or musculoskeletal issues reported significantly higher levels of stigma compared to those without these specific comorbidities. Furthermore, stigma was more pronounced among survivors who had a larger number of comorbidities. Therefore, it is crucial to enhance stigma management among BCSs, particularly for those with additional health issues[58].

Gaps and Trends in Literature Related to Cancer Stigma and Social Difficulties:

Gaps:

1. **Impact of Cancer Stigma on Community Engagement in India:** Limited research exists on how cancer stigma affects social involvement in India, particularly in community participation and professional experiences.
2. **Role of Social Support Networks:** While emotional effects are documented, the role of family and friends in mitigating stigma needs exploration.
3. **Gender and Age Perspectives on Stigma:** Studies often overlook the influences of gender and age on cancer stigma. Your research could investigate how these factors shape social reintegration.
4. **Stigma and Mental Health in Rural Areas:** Most research focuses on urban settings, neglecting the experiences of cancer patients in rural areas.
5. **Long-Term Effects of Stigma on Survivorship:** There is a lack of long-term studies on the ongoing social barriers faced by cancer survivors post-treatment.

Trends:

1. **Cancer Awareness and Stigma Reduction Campaigns:** Efforts to reduce stigma in India require evaluation of their effectiveness, especially in rural communities.
2. **Increased Mental Health Awareness:** There is growing acknowledgment of the mental health impacts of cancer stigma, but specific studies are still limited.
3. **Focus on Family Support Systems:** Growing interest in how family attitudes towards cancer influence stigma and isolation can be further researched.
4. **Community-Based Initiatives for Stigma Reduction:** New grassroots programs are emerging, and assessing their effectiveness in addressing stigma is vital.
5. **Advancements in Cancer Care Technology:** The rise of telemedicine invites study into how digital solutions can reduce stigma and enhance integration in low-income and rural areas.

In this study, exploring cancer-related stigma in India can fill these gaps by looking at its impact on mental health and social life, with attention to cultural and family factors. Considering gender, age, and differences between rural and urban settings, this research can provide insights into the effects of stigma on social engagement and mental well-being. Additionally, studying family support and community initiatives will be crucial for understanding and proposing solutions for social reintegration.

SUMMARY

The stigma associated with cancer and the social challenges faced by patients greatly affect their overall well-being, adherence to treatment, and quality of life. This stigma, fueled by cultural beliefs and misconceptions, results in social isolation, depression, and self-stigmatization. Research indicates that in India, financial limitations and a lack of health literacy contribute to diagnoses occurring at later stages. Additionally, studies across the globe connect stigma with concerns about body image and extended treatment durations. It is crucial to tackle these issues through increased public awareness, patient-centered care, and improved communication within the healthcare system to enhance outcomes for individuals with cancer.

CHAPTER III

MATERIALS AND METHODS

CHAPTER 3

MATERIALS AND METHODS

Research methodology is a structured approach for methodically addressing research problems, serving as the framework to investigate and understand scientific research processes[59].

This chapter provides a brief description of the method adopted by the researcher to conduct this study. It includes the research approach, research design, setting of the study, sample and sampling technique, etc.

RESEARCH APPROACH

A research approach constitutes the researcher's strategic framework designed to determine the most effective methodologies for collecting, analyzing, and interpreting data. This framework serves as the essential structure that directs the researcher in generating accurate and comprehensible information[60].

In the context of this study, a quantitative research methodology was selected to attain the specified objectives. This approach enables the utilization of numerical data and statistical analysis, thereby providing a reliable foundation for drawing meaningful conclusions related to the research questions.

RESEARCH DESIGN

The research design implemented in this study is a descriptive research design, which is particularly well-suited for generating a comprehensive understanding of the experiences of cancer patients. This approach effectively facilitates the assessment of

stigma and social difficulties, as well as the identification of various factors that may contribute to these issues. By utilizing this methodology, the study aims to capture the nuanced experiences and challenges faced by individuals with cancer, thereby providing valuable insights into their social environments and the impact of stigma on their overall well-being.

RESEARCH VARIABLES

- **Research Variables:**
  - Perceived Stigma
  - Social Difficulties
- **Demographic variables**: Age, Gender, Level of education, Occupational Status, Type of Residence, Religion, Marital Status, Type of family, Family Support, and Socioeconomic status scale of Kuppuswamy[61].
- **Clinical variables**: Family history of cancer, Type of cancer, Period of illness, Cancer stage, Comorbid diseases, Treatment type received.

RESEARCH SETTING

This research was carried out in the Oncology Outpatient Department (OPD) and In-Patient Department (IPD) at a tertiary care facility, All India Institute of Medical Sciences (AIIMS) Bhopal. Located in the Bhopal district of Madhya Pradesh, AIIMS Bhopal is recognized as an Institute of National Importance (INI). The hospital accommodates a total of 1200 beds and has a well-established Oncology Outpatient Department (OPD) and In-Patient Department (IPD). This setting was chosen for the current study as cancer patients seek treatment in the OPD and IPD at AIIMS Bhopal.

POPULATION

- **Target population:** Patients who were diagnosed with cancer.
- **Accessible population:** All cancer patients who were receiving treatment at AIIMS Bhopal.

SAMPLE

Cancer patients who had taken treatment during the course of the study at AIIMS, Bhopal, and met the inclusion and exclusion criteria were the sample of this study.

SAMPLING CRITERIA

- **Inclusion Criteria:**

  ✓Patients who are confirmed diagnosed of the cancer at least 3 months before.

  ✓Patients with age of more than 18 years.

  ✓Patients who can understand either English or Hindi.

  ✓Patients who are willing to participate.

- **Exclusion Criteria:**

  ✓Patients with diagnosed cognitive impairment.

  ✓Patients with diagnosed psychological problems.

  ✓Patients who are unable to give the response.

- **Sample Size:**

  Sample size = Based on previous research, Stigma Perceived by Women Following Surgery for Breast Cancer, the prevalence of stigma is 27.6%[42], so the sample size was estimated by using the formula where -

$$N=Z^2Pq/d^2$$

Where,

- N: is the required sample size.
- Z: is the Z-score corresponding to the desired level of confidence (e.g., 1.96 for a 95% confidence level).
- P: is the expected proportion of event of interest (0.276)
- d: precision (margin of error), i.e.,0.05
- q: 1-P

However, the final sample size will be estimated based on the findings of a pilot study.

- **Sampling Technique:**

✓A convenience sampling technique, which is a form of non-probability sampling, was utilized in this research due to its practicality and suitability for the context of the study.

✓This approach permits researchers to choose participants who are readily available and willing to take part, thus aiding in data collection within the limits of time and resources. By concentrating on individuals who can be easily accessed, this method ensures that the study can be carried out efficiently, although it may constrict the generalizability of the results.

✓In summary, the convenience sampling method was selected to balance the need for relevant data with the feasibility of the research process.

DATA COLLECTION TOOLS AND INSTRUMENTS

• Development and description of the tool

The foundation of any research is the collection of suitable information. Data collection is the organized process through which researchers obtain pertinent data from diverse sources, allowing them to tackle research inquiries, evaluate hypotheses, and measure final results[62]. A tool refers to an instrument utilized to gather the necessary information[60]. The following steps were followed in creating the tool:

1. Review of literature on Stigma, Social Difficulties, and its associated factors among cancer patients.
2. Preparation of the blueprint of the screening tool and self-structured tool.
3. Preparation of the first draft of the tool.
4. Personal consultation and discussion with guide and co-guide.
5. Preparation of criteria rating scale for validation of the tool.
6. Content validation of the tool.
7. Modifications of the tool based on suggestions.
8. Reliability testing of the tool.
9. Preparation of the final draft of the tool.

The finalized tool for data collection included the following contents:

- Screening tool to select the participants for the research study based on inclusion and exclusion criteria. (ANNEXURE 1)
- Self–structured tool containing (ANNEXURE 2 & 3)
- Structured tool containing (ANNEXURE 2 & 3)

SECTION A: Socio-demographic and clinical characteristics.

This section included 10 items to assess the socio-demographic characteristics of the patients and 6 items to assess the clinical characteristics of the patients.

Socio-demographic data included:

Age, Gender, Level of education, Occupational Status, Type of Residence, Religion, Marital Status, Type of family, Family Support, and Socio-economic status scale by Kuppuswamy[61].

Clinical data consisted of:

Family history of cancer, Type of cancer, Duration of illness, Cancer stage, Comorbid diseases, and Type of treatment is going on.

SECTION B: - 'Cancer stigma: Patient version tool[51].'

- The questionnaire was created by Cho et al. to assess the attitudes of cancer patients towards their condition.
- The patient-specific version consists of 12 items divided into three subscales: "Impossibility of Recovery," "Stereotypes of Cancer Patients," and "Experience of Social Discrimination." Respondents rate each item using a scale of (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree.
- The scale demonstrated a Cronbach's alpha value of 0.88[63].
- **SCORING METHOD:**
    - For each patient and each domain, mean and total scores were computed.
        i. Stigma scores ≥2.5 represent a high level of stigma and
        ii. Stigma scores <2.5 represent a low level of stigma.

SECTION C: - 'Social Difficulties Inventory[64].'

- The Social Difficulties Inventory (SDI) is a 21-item questionnaire aimed at evaluating the social challenges faced by cancer patients in the past month.
- The SDI-21 is included in the assessment guidance for the social and occupational aspects of the Holistic Common Assessment of Supportive and Palliative Care Needs for Adults Living with Cancer.
- The SDI-21 has undergone extensive evaluation for its use with cancer-care patients, demonstrating solid validity and reliability[24].
- Each item in the SDI-21 self-report addresses a distinct aspect of potential daily life challenges: (1) Independence, (2) Domestic Chores, (3) Personal Care*, (4) Caring for Dependents*, (5) Support available for those close to you, (6) Welfare Benefits, (7) Finances, (8) Financial Services*, (9) Work*, (10) Future Planning, (11) Communicating with Close Ones, (12) Communicating with Others, (13) Sexual Matters, (14) Family Planning, (15) Body Image, (16) Isolation, (17) Mobility, (18) Residential Issues, (19) Recreation, (20) Vacations, and (21) Other (unspecified).
- *Key items highlighted to indicate Rasch-adjusted coding with ‘very much difficulty’ rated as 2.
- Scoring ranges from no difficulty to significant difficulty (0–3).
- Each item is evaluated on a 4-point scale (0 = no difficulty, 1 = a little difficulty, 2 = quite a bit of difficulty, and 3 = very much difficulty).
- The five individual items (13, 14, 18, 20, 21) are excluded from the social difficulty scoring. To calculate the SD score, based on Rasch analysis, items 3, 4, 8, and 9 rated as ‘very much (3)’ are adjusted to ‘quite a bit (2)[65].
- The SD score consists of the sum of items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, and 19 (range: 0 – 44)[65].

- The SDI features three primary subscales: everyday living (range 0–16), financial concerns (range 0–13), and self and others (range 0–15). Additionally, five separate items assess difficulties regarding sexual matters, family planning, housing, vacations, and others. This item was included in the 'Self and Others' subscale to enhance its reliability.
- The Cronbach's alpha for each subscale is 0.820, 0.743, and 0.717.
- Each subscale exhibited an acceptable level of internal consistency, ranging from 0.717 to 0.820.
- **SCORING METHOD:**
    - The data from the SDI subscales and five single items were skewed, prompting the responses to be dichotomized using a cut-off point of 10 into:
        i. A score ≤10 indicates No Social Difficulties
        ii. A score≥11 indicates Social Difficulties.

SECTION D: 'Hospital Anxiety and Depression Scale (HADS)'[66].

- The Hospital Anxiety and Depression Scale (HADS) was created by Zigmond and Snaith in 1983.
- Various researchers in India have utilized this scale in the same language[67].
- The questionnaire consists of seven items that assess anxiety and seven that assess depression. (Among the seven depression items, five focus on the decrease in pleasure response).
- It is designed to identify the presence (possible and probable) of anxiety disorders and depression in patients seen in nonpsychiatric hospital settings.
- The scale is split into an Anxiety subscale (HADS-A) and a Depression subscale (HADS-D), each containing seven mixed items.

- The correlation coefficients between the two subscales ranged from .40 to .74, with a mean of .56. The Cronbach's alpha for HADS-A ranged from .68 to .93, averaging at .83, while for HADS-D, it ranged from .67 to .90, averaging at .82.
- Patients respond to each item using a four-point (0–3) response scale, resulting in possible scores from 0 to 21 for both anxiety and depression.
- Completing the HADS typically takes between 2 to 5 minutes.
- **SCORING METHOD:**
    - The subscales for anxiety and depression were categorized as no case (a score of 7 or lower signifies the absence of anxiety or depression) or case (a score of 8 or higher suggests a likelihood of depression or anxiety)[68,69].
    - Overall score: Depression (D) _____ Anxiety (A) _____
        i. ≤7 = No case or Normal
        ii. ≥7 = Case or abnormal

TECHNIQUE OF DATA COLLECTION

In the present study, the screening tool based on inclusion and exclusion criteria was used to select the study participants, and a self-structured questionnaire was used as a data collection technique. A face-to-face interview was conducted in which the researcher read questions loudly and clearly to the participants, and responses were recorded accordingly.

VALIDITY AND RELIABILITY OF TOOLS: (ANNEXURE 5,6 & 7)

Validity:

The content validity of the self–structured tool was established. The tool was sent to 12 experts (ANNEXURE 4) in the fields of Medical-Surgical Nursing, Medical Oncology,

and Department of Radiotherapy. The Item Content Validity Index (I-CVI) and the Scale Content Validity Index (S-CVI) were computed.

- Section-A: socio-demographic data

  S-CVI=SUM of I-CVI/No. of items=8.73/9=0.97

- Section-A: Clinical Data

  S-CVI=SUM of I-CVI/No. of items=6/6=1

The tool was found to be valid.

Reliability:

Reliability refers to the consistency and accuracy of an instrument with which it measures the target attribute for its designed purpose[60]. To establish the reliability of section B, section C, and section D, containing statements to assess perceived stigma, social difficulties, anxiety, and depression among cancer patients, the structured questionnaire was administered to 32 cancer patients, and their response was collected. Internal consistency was calculated using the split-half method using SPSS software (version 20).

1. **SECTION B:** Cancer stigma: Patient version tool[51].
   - ✓ The Cronbach's alpha value of the scale was 0.89.

2. **SECTION C:** The Social Difficulties Inventory (SDI)[64]
   - ✓ Cronbach's alpha for subscale are 0.840, 0.890, and 0.882.

3. **SECTION D:** Hospital Anxiety and Depression Scale (HADS)[66]

   - ✓ Cronbach's alpha for HADS-A was 0.92, and for HADS-D, it was 93.

These split-half correlation values indicate an acceptable level of reliability for the tool[62].

Language translation: The English-to-Hindi translation tool and its reverse translation were done and validated by experts in Hindi and English, respectively. (ANNEXURE 8 & 9)

ETHICAL CONSIDERATIONS

The letter of permission was taken from the Institute Human Ethics Committee (LOP Ref. Number: IHEC/SR/2024/16) dated 1st February 2024. Administration permission was taken from the Medical Superintendent, Principal of Nursing College, AIIMS Bhopal, and notified HODs and Senior Nursing Officers of respective departments prior to commencing data collection (ANNEXURE 10). Participants were informed about the study using participant information sheets (ANNEXURE 11 & 12). Informed consent was taken from the study participants (ANNEXURE 13). Ensured anonymity by assigning code numbers for identification instead of using names. Upheld participant confidentiality by restricting data access to the research team exclusively.

PILOT STUDY

A pilot study is a smaller-scale study done before conducting the actual main study. In the present study, a pilot study was conducted in Oncology OPD, AIIMS Bhopal, from 03/06/2024 to 08/06/2024 among 32 cancer patients after receiving permission from the medical superintendent. Study participants were selected using a screening tool. Self-introduction was done, and after establishing rapport with the subject, the purpose of the

study was explained, and consent was taken. The researcher asked questions to the participants, and the response was recorded in the questionnaire. This whole process took 20-25 minutes for one patient. The pilot study revealed that the study was feasible and that the tool was suitable for use in the main study.

PROCEDURE FOR DATA COLLECTION

After obtaining ethical clearance and permission from the hospital authority, data collection commenced on 5th August 2024 and continued until 12th October 2024. A written permission was obtained from the concerned authority prior to data collection. 307 cancer patients who are seeking treatment in AIIMS Bhopal were included. Study participants underwent screening using a screening tool, adhering to predetermined inclusion and exclusion criteria. Self-introduction was done, and after establishing rapport with the participants, the purpose of the study was explained to each subject, and written consent was obtained from them. Then, the final tool was administered through face-to-face interviews, and the whole process took 20- 25 minutes for each participant. Analytical procedures involved descriptive and inferential statistics to examine the collected data.

PLAN FOR DATA ANALYSIS

The strategy for data analysis incorporates both descriptive and inferential statistical methods. A comprehensive master data sheet was established following the editing, coding, and organization of the data for subsequent analysis. The evaluation was carried out using IBM SPSS version 20.0.

- The Kolmogorov-Smirnov test was employed to assess the normal distribution of the stigma and social difficulties data. For datasets exhibiting a normal distribution,

the mean and standard deviation were calculated, whereas the median and range were examined for those datasets not conforming to normality.

- The Stigma and Social Difficulties data were presented using the median and interquartile range (IQR), given their failure to meet the normality criterion.
- Socio-demographic and clinical characteristics were detailed using frequency and percentage distributions.
- Frequency percentage distributions were analyzed to investigate the levels of perceived Stigma and social challenges among cancer patients.
- To find out the association between socio-demographic and clinical variables with Stigma and social difficulties among cancer patients, frequency percentage distributions along with the Chi-square test/Fisher's exact test were utilized. When more than 20% of the cells had expected frequencies below 5, Fisher's exact test was applied.
- Multiple logistic regression analysis was carried out to find out the factors associated with Stigma and Social Difficulties among cancer patients. All variables that were found significant in the univariate analysis, including those identified through the Chi-square or Fisher's exact tests, were chosen for the multivariate analysis.
- Spearman's correlation coefficient analysis was conducted to evaluate the relationship between Stigma and Social Difficulties among cancer patients, attributed to the breach of normality assumptions.

CHAPTER IV

RESULT

CHAPTER 4

RESULTS

This chapter focuses on the analysis and interpretation of data obtained from cancer patients attending the oncology outpatient department (OPD) through the self-structured Socio-Demographic and Clinical Variables questionnaire and structured questionnaire to assess Stigma, Social Difficulties, Anxiety, and Depression. The collected data was analyzed using descriptive and inferential statistical methods according to the objectives and hypotheses of the study. The statistical analysis was carried out utilizing IBM SPSS version 20.0.

Organization of the study findings-

The findings of the present study are organized under the following headings:

SECTION – I (a): Description of Socio-Demographic Variables of Cancer Patients.

SECTION – I (b): Description of Clinical Variables of Cancer Patients.

SECTION – II(a): Description of Stigma among Cancer Patients.

SECTION – II(b): Description of Social Difficulties among Cancer Patients.

SECTION – III: Level of Stigma and Social Difficulties among Cancer Patients.

SECTION – IV (a): Univariate analysis to find out the factors affecting Stigma among Cancer Patients.

SECTION – IV (b): Multiple logistic regression analysis to find out the factors associated with Stigma among Cancer Patients.

SECTION – IV (c): Univariate analysis to find out the factors affecting Social Difficulties among Cancer Patients.

SECTION – IV (d): Multiple logistic regression analysis to find out the factors associated with Social Difficulties among Cancer Patients.

SECTION – V: Spearman's Correlation Coefficient to find out the relationship between Stigma and Social Difficulties among Cancer Patients.

SECTION – I (a)

Description of Socio-Demographic Variables of Cancer Patients.

Table 2: Frequency and percentage distribution of participants according to their Socio-Demographic Variables.

(N = 307)

Sl. No.	Socio-Demographic Variables		Frequency	Percentage
1.	Age	18-28 yrs	9	2.93%
		29-39 yrs	51	16.61%
		40-50 yrs	106	34.53%
		51-61 yrs	74	24.10%
		>61 yrs	67	21.82%
2.	Gender	Male	139	45.28%

		Female	168	54.72%
3.	Religion	Hindu	239	77.85%
		Muslim	67	21.82%
		Christian	1	0.33%
4.	Education	Unable to read and write	53	17.26%
		Primary education and less	79	25.73%
		Secondary education	106	34.53%
		Higher secondary education	53	17.26%
		College and above	16	5.21%
5.	Occupation	Housewife	112	36.48%
		Government employee	11	3.58%
		Private employee	35	11.40%
		Have own business/Self-employed	96	31.27%
		Unemployed	53	17.26%
6.	Type Of Residence	Rural	99	32.25%

		Urban	208	67.75%
7.	Marital Status	Single	21	6.84%
		Married	265	86.32%
		Divorced	7	2.28%
		Widowed	10	3.26%
		Widower	4	1.30%
8.	Family Type	Nuclear	190	61.89%
		Joint Family	114	37.13%
		Single Parent Family	2	0.65%
		Grandparent Family	1	0.33%
9.	Family Support	Mother-in-law/Father-in-law	23	7.49%
		Mother/Father	37	12.05%
		Son/Daughter in law	82	26.71%
		Husband/Wife	140	45.60%
		Brother/Sister	13	4.23%
		Daughter/Son in law	7	2.28%

		Others	5	1.63%
10.	Socio-Economic Status	Lower	6	1.95%
		Upper lower	132	43.00%
		Lower middle	110	35.83%
		Upper middle	57	18.57%
		Upper	2	0.65%

The above table 2 describes the distribution of participants according to their socio-demographic variables. The age distribution shows a significant number of individuals are in the 40-50 years age group (34.53%), followed by 51-61 years (24.10%) and 29-39 years (16.61%). A majority of participants are female (54.72%), and most belong to the Hindu religion (77.85%). In terms of education, the largest group has secondary education (34.53%), and most participants are housewives (36.48%), followed by self-employed individuals (31.27%), while 17.26% are unemployed. The majority reside in urban areas (67.75%), and most individuals are married (86.32%), with nuclear families making up 61.89%and joint families forming the largest group (37.13%).

Most of the participants' family support is predominantly from spouses (45.60%), and most of the participants belong to the upper lower class (43.00%). Following this, an average of 35.83% of participants fall into the lower middle-class category.

SECTION – I (b)

Description of Clinical Variables of Cancer Patients.

Table 3: Frequency and percentage distribution of participants according to their Clinical Variables.

(N = 307)

Sl. No.	Clinical Variables		Frequency	Percentage
1.	Family history of cancer.	Yes	9	2.93%
		No	298	97.07%
2.	Type of cancer.	Head and Neck Cancer	81	26.38%
		Breast Cancer	70	22.80%
		Gynecological cancer	74	24.10%
		Skin cancer	6	1.95%
		Lung cancer	23	7.49%
		GI tract cancer	24	7.82%
		Urinary tract cancer	7	2.28%
		Testicular cancer	2	0.65%
		Neurological cancer	3	0.98%

		Endocrine cancer	7	2.28%
		Sarcoma	2	0.65%
		Hematological cancer	8	2.61%
3.	Period of your illness.	3-8 months	73	23.78%
		9-14 months	121	39.41%
		15-20 months	62	20.20%
		21-25 months	26	8.47%
		>25 months	25	8.14%
4.	Stage of cancer.	1 stage	6	1.95%
		2 stage	160	52.12%
		3 stage	91	29.64%
		4 stage	50	16.29%
5.	Any Comorbid disease	Yes	84	27.36%
		No	223	72.64%
	a. Hypertension	No	228	74.27%
		Yes	79	25.73%
	b. Diabetes	No	264	85.99%

		Yes	43	14.01%
	c. Thyroid Disorder	No	298	97.07%
		Yes	9	2.93%
	d. Asthma	No	299	97.39%
		Yes	8	2.61%
	e. Other comorbid illness	No	304	99.02%
		Yes	3	0.98%
6.	**Treatment-Related Variable**			
	a. Type of treatment is going on.	Chemotherapy	156	50.81%
		Radiotherapy	8	2.61%
		Both chemotherapy and radiotherapy	129	42.02%
		Other	14	4.56%
	b. Any surgery is done.	Yes	167	54.40%
		N0	140	45.60%

Table 3 provides a summary of clinical variables among participants. A small percentage (2.93%) have a family history of cancer, while the majority (97.07%) do not. The most common

cancer types are head and neck cancer (26.38%), gynecological cancer (24.10%), and breast cancer (22.80%). The majority of participants have an illness period of 9-14 months (39.41%), and most participants are diagnosed with stage 2 cancer (52.12%), followed by stage 3 (29.64%). A significant proportion (27.36%) have comorbid diseases, with hypertension being the most common (25.73%). Diabetes, thyroid issues, and asthma are less prevalent, affecting 14.01%, 2.93%, and 2.61% of participants, respectively. Most of the participants, i.e., 50.81%, are undergoing chemotherapy, and more than half of the participants (54.40%) have undergone surgery.

SECTION – II(a)

Description of Stigma among Cancer Patients.

Table 4: Distribution of the responses the patients gave to the items in the "Questionnaire for Measuring Attitudes Toward Cancer (Cancer Stigma) - Patients Version" (*N* = 307) [*n* (%)].

Domains	Items	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
Domain 1 Impossibility of Recovery/P	**1.** Cancer is impossible to treat regardless of highly developed medical science	42 (13.7%)	205 (66.8%)	57 (18.6%)	3 (1.0%)

erceptions of cancer and health	**2.** I would not be socially active once diagnosed with cancer	1 (0.3%)	93 (30.3%)	204 (66.4 %)	9 (2.9%)
	3. Job performance at the workplace may decrease even after successful cancer treatment	2 (0.7%)	17 (5.5%)	248 (80.8 %)	40 (13.0%)
	4. It is very difficult to be healthy again once a person is diagnosed with cancer	0 (0%)	4 (1.3%)	77 (25.1 %)	226 (73.6%)
<u>Domain 2</u> Stereotypes of cancer patients	**5.** Cancer patients are easily recognized by their look	54 (17.6%)	96 (31.3%)	148 (48.2 %)	9 (2.9%)
	6. Cancer patients would have a difficult time having sexual intimacy	71 (23.1%)	123 (40.1%)	110 (35.8 %)	3 (1.0%)

	7. Cancer patients deserve to be protected in society	0 (0%)	0 (0%)	189 (61.6 %)	118 (38.4%)
	8. Cancer patients would not be able to make contributions to society	41 (13.4%)	155 (50.5%)	101 (32.9 %)	10 (3.3%)
Domain 3 Experience of social discriminati on	**9.** Some friends avoid me because of cancer	132 (43.0%)	114 (37.1%)	54 (17.6 %)	7 (2.3%)
	10. Some neighbors tend to avoid interacting with me because of cancer	46 (15.0%)	141 (45.9%)	97 (31.6 %)	23 (7.5%)
	11. I have problems with my family/married life because of cancer	13 (4.2%)	65 (21.2%)	204 (66.4 %)	25 (8.1%)

	12. My employer/co-workers have discriminated against me	85 (27.7%)	150 (48.9%)	66 (21.5 %)	6 (2.0%)

Table 4 presents three key domains related to the experiences of stigma among cancer patients. The **Impossibility of Recovery/Perceptions of Cancer and Health** domain shows that most individuals believe recovery is difficult once diagnosed with cancer, with 73.6% strongly agreeing that it's hard to regain health. In the **Stereotypes of Cancer Patients** domain, many respondents hold views that cancer patients are easily identifiable by their appearance (48.2%), and the majority also believe cancer patients deserve societal protection (61.6%). Lastly, the **Experience of Social Discrimination** domain reveals that many cancer patients, i.e., 66.4%, agree that difficulties in the family or marital relationships. This data highlights both the social stigma and challenges cancer patients face in their daily lives.

SECTION – II(b)

Description of Social Difficulties among Cancer Patients.

Table 5: Distribution of the responses the patients gave to the items in the "Social Difficulties Inventory" (*N* = 307) [*n* (%)].

During the past month

		No difficulty (0)	A little (1)	Quite a bit (2)	Very much (3)
Subscale 1: Everyday living					
1	Have you had any difficulty maintaining your independence?	84 (27.4%)	186 (60.6%)	35 (11.4%)	2 (0.7%)
2	Have you had any difficulty in carrying out your domestic chores? (e.g., cleaning, gardening, cooking, shopping)	48 (15.6%)	190 (61.9%)	61 (19.9%)	8 (2.6%)
3	Have you had any difficulty with managing your own personal care? (e.g., bathing, dressing, washing) *	17 (5.5%)	115 (37.5%)	166 (54.1%)	9 (2.9%)
4	Have you had any difficulty with looking after those who depend on you? (e.g., children, dependent adults, pets) *	13 (4.2%)	179 (58.3%)	68 (22.1%)	47 (15.3%)
5	Have you had any difficulty with getting around? (e.g., transport, car parking, your mobility)	139 (45.3%)	123 (40.1%)	43 (14.0%)	2 (0.7%)

6	Have you had any difficulty in carrying out your recreational activities (e.g., hobbies, pastimes, social pursuits)	6 (2.0%)	91 (29.6%)	194 (63.2%)	16 (5.2%)
Subscale 2: Money matters					
7	Have you had any difficulties with benefits? (e.g., Statutory Sick Pay, Personal Independence Payments, Attendance Allowance, Universal Credit)	17 (5.5%)	157 (51.1%)	126 (41.0%)	7 (2.3%)
8	Have you had any financial difficulties?	12 (3.9%)	72 (23.5%)	112 (36.5%)	111 (36.2%)
9	Have you had any difficulties with financial services? (e.g., loans, mortgages, pensions, insurance) *	38 (12.4%)	106 (34.5%)	153 (49.8%)	10 (3.3%)
10	Have you had any difficulty concerning your work? (or education if you are a student) *****	33 (10.7%)	128 (41.7%)	121 (39.4%)	25 (8.1%)
11	Have you had any difficulty with planning for your own or your family's future? (e.g., care of dependents, legal issues, business affairs)	25 (8.1%)	149 (48.5%)	120 (39.1%)	13 (4.2%)
Subscale 3: Self and others					

12	Have any of those close to you (e.g., partner, children, parents) had any difficulty with the support available to them?	184 (59.9%)	118 (38.4%)	5 (1.6%)	0 (0%)
13	Have you had any difficulty with communicating with those closest to you? (e.g., partner, children, parents)	199 (64.8%)	76 (24.8%)	26 (8.5%)	6 (2.0%)
14	Have you had any difficulty with communicating with others? (e.g., friends, neighbors, colleagues, dates)	87 (28.3%)	150 (48.9%)	64 (20.8%)	6 (2.0%)
15	Have you had any difficulty concerning your appearance or body image?	19 (6.2%)	153 (49.8%)	114 (37.1%)	21 (6.8%)
16	Have you felt isolated?	15 (4.9%)	153 (49.8%)	110 (35.8%)	29 (9.4%)
Single items:					
17	Have you had any difficulty concerning sexual matters?	172 (56.0%)	116 (37.8%)	15 (4.9%)	4 (1.3%)
18	Have you had any difficulty concerning plans to have a family?	184 (59.9%)	81 (26.4%)	34 (11.1%)	8 (2.6%)
19	Have you had any difficulty with where you live? (e.g., space, access, damp, heating, neighbors, security)	154 (50.2%)	146 (47.6%)	7 (2.2%)	0 (0%)

20	Have you had any difficulty with your plans to travel or take a holiday?	81 (26.4%)	168 (54.7%)	53 (17.3%)	5 (1.6%)
21	Have you had any difficulty with any other area of your everyday life?	73 (23.8%)	200 (65.1%)	34 (11.1%)	0 (0%)

***Key emboldened numbers indicate Rasch adjusted coding and very much difficulty coded as 2.**

Table 5 presents individuals' social difficulties in various aspects of their lives over the past month, containing three subscales. **Everyday Living:** Most participants had minimal issues with independence (27.4%) and household chores (15.6%). However, personal care was more challenging, with 54.1% reporting difficulty. Caring for dependents (37.5%) and mobility (40.1%) also posed challenges for many. In **Money Matters:** A significant portion (72.7%) struggled financially. 36.2% faced serious financial difficulties, and 49.8% had issues with financial services. For **Self and Others:** Communication problems with close family members were common, with 33.3% experiencing difficulties. Many also felt isolated (45.2%) and had body image concerns (43.9%).

Distribution of Stigma and Social Difficulties Score among Cancer Patients.

The Kolmogorov - Smirnov test (P > 0.05) and **visual inspection of the histograms** and **Q–Q plots** showed that Stigma and Social Difficulties scores were not normally distributed. Since the data did not meet the normality assumption, the **median** and **interquartile range (IQR)** were reported for the outcome variables. The **median** was chosen as it is less influenced by outliers or extreme values in skewed distributions, providing a more robust measure of central

tendency. Similarly, the **IQR** offers a reliable measure of variability by indicating the spread of the middle 50% of the data, making it particularly useful when the data distribution is not symmetrical. Together, these measures provide a clearer and more accurate representation of the data in such scenarios.

Table 6: Median and range of Stigma and Social Difficulties among Cancer Patients.

(N = 307)

Variables	Median	Q_1	Q_3
Stigma	2.50	2.33	2.75
Social Difficulties	19.00	16.00	22.00

Table 6 presents the distribution of **Stigma** and **Social Difficulties** Variables, using the median, first quartile (Q1), and third quartile (Q3) values. For **Stigma**, most participants had stigma scores between 2.33 and 2.75, with a median Stigma score of 2.50. The relatively narrow interquartile range (IQR = 2.75 - 2.33 = 0.42) suggests that most individuals in the sample experience high levels of stigma, are not widely spread, and are somewhat clustered around the median.

For **Social Difficulties**, the majority of participants had social difficulties scores between 16.00 and 22.00, with a median Social Difficulties score of 19.00. The IQR is 6.00 (22.00 - 16.00), which indicates moderate variability in the social difficulty scores within the middle 50% of participants.

SECTION – III

Level of Stigma and Social Difficulties among Cancer Patients.

Table 7: Level of Stigma among Cancer Patients.

(N = 307)

Variables		Frequency	Percentage
STIGMA	**Low Stigma** (Stigma score <2.5 represents Low Stigma)	95	30.94%
	High Stigma (Stigma score ≥2.5 represents High Stigma)	212	69.06%

Table 7 presents the distribution of Stigma levels based on a Stigma Score, categorizing individuals into Low and High-Stigma groups. A Stigma Score below 2.5 indicates Low Stigma, while a score above 2.5 represents High Stigma. The data shows that **95 individuals (30.94%)** fall into the Low Stigma category, whereas a significantly larger proportion, **212 individuals (69.06%)**, experience High Stigma.

Table 8: Level of Social Difficulties among Cancer Patients.

(N = 307)

Variables	Frequency	Percentage

SOCIAL DIFFICULTIES	**No Social Difficulties** (Score <10 represents **No Social Difficulties**)	69	22.48%
	Social Difficulties (Score >=10 represents **Social Difficulties**)	238	77.52%

Table 8 presents the distribution of Social Difficulties based on a scoring system, where a Score below 10 indicates No Social Difficulties, and a Score of 10 or higher signifies the presence of Social Difficulties. The data reveals that **69 individuals (22.48%)** experience No Social Difficulties, while a significantly larger proportion, **238 individuals (77.52%)**, report having Social Difficulties.

SECTION – IV (a)

Univariate analysis to find out the factors affecting Stigma among Cancer Patients.

Table 9: Frequency and percentage distribution of Anxiety among Cancer Patients.

(N = 307)

Anxiety	**Frequency**	**Percentage**
Normal (Score <7 indicates no anxiety)	50	16.3%
Abnormal (Score >7 indicates the probability of anxiety)	257	83.7%

Total	307	100%

Table 9 presents data on anxiety among a sample of **307 individuals**. The findings reveal that the majority of individuals, **257 (83.7%)**, scored above 7 and exhibited abnormal levels of anxiety or indicated a high probability of anxiety, while only 50 (16.3%) scored below 7, suggesting that they had no signs of anxiety.

Table 10: Frequency and percentage distribution of Depression among Cancer Patients.

(N = 307)

Depression levels	**Frequency**	**Percentage**
Normal (Score <7 indicates no depression)	45	14.7%
Abnormal (Score >7 indicates the probability of depression)	262	85.3%
Total	307	100.0%

Table 10 presents the distribution of Depression among 307 individuals. A majority of participants, 262 (85.3%), scored above 7, indicating a high probability of depression. In contrast, 45 participants (14.7%) scored below 7, suggesting that they have no signs of depression. Overall, this data shows that a significant proportion of the population in this sample is likely experiencing depression, while a smaller group appears to have normal depression levels.

Table 11: Univariate analysis to find out the factors affecting Stigma among Cancer Patients.

(N = 307)

SI. NO.	Variables		STIGMA		Chi-square/Fisher's exact statistic (p-value)
			Stigma Absent	Stigma Present	
Socio-Demographic Variables					
1.	Age	18-28 yrs	3	6	2.909 (0.573) [Chi square]
		29-39 yrs	19	32	
		40-50 yrs	36	70	
		51-61 yrs	19	55	
		>61 yrs	18	49	
2.	Gender	Male	45	94	0.243(0.622) [Chi square]
		Female	50	118	
3.	Religion	Hindu	83	156	**7.609 (0.008*)** [Fisher's exact]
		Muslim	12	55	
		Christian	0	1	

4.	Education	Unable to read and write	9	44	**13.580 (0.009*)** [Fisher's exact]
		Primary education and less	18	61	
		Secondary education	39	67	
		Higher secondary education	21	32	
		College and above	8	8	
5.	Occupation	Housewife	27	85	8.634 (0.071) [Chi square]
		Government employee	7	4	
		Private employee	11	24	
		Have own business/Self-employed	31	65	
		Unemployed	19	34	
6.	Type Of Residence	Rural	14	85	**19.307 (<0.001*)** [Chi square]
		Urban	81	127	
7.	Marital Status	Single	12	9	**13.465 (0.005*)**

		Married	76	189	[Fisher's exact]
		Divorced	5	2	
		Widowed	2	8	
		Widower	0	4	
8.	Family Type	Nuclear	53	137	4.512 (0.153) [Fisher's exact]
		Joint Family	40	74	
		Single Parent Family	1	1	
		Grandparent Family	1	0	
9.	Family Support	Mother-in-law/Father-in-law	5	18	**18.697 (0.003*)** [Fisher's exact]
		Mother/Father	21	16	
		Son/Daughter in law	23	59	
		Husband/Wife	37	103	
		Brother/Sister	4	9	
		Daughter/Son in law	1	6	
		Others	4	1	
10.		Lower	1	5	6.361 (0.144)

	Socio-Economic Status	Upper lower	36	96	[Fisher's exact]
		Lower middle	32	78	
		Upper middle	25	32	
		Upper	1	1	
	Clinical Variables				
1.	Family History of Cancer	Yes	4	5	(0.466) [Fisher's exact]
		No	91	207	
2.	Type Of Cancer.	Head and Neck Cancer	13	68	-
		Breast Cancer	24	46	
		Gynecological cancer	19	55	
		Skin cancer	4	2	
		Lung cancer	8	15	
		GI tract cancer	10	14	
		Urinary tract cancer	4	3	
		Testicular cancer	2	0	

		Neurological cancer	2	1	
		Endocrine cancer	5	2	
		Sarcoma	1	1	
		Hematological cancer	3	5	
3.	Period Of Your Illness.	3-8 months	28	45	**12.098 (0.017*)** [Chi square]
		9-14 months	45	76	
		15-20 months	14	48	
		21-25 months	3	23	
		>25 months	5	20	
4.	Stage Of Cancer.	1 stage	3	3	**17.846 (<0.001*)** [Fisher's exact]
		2 stage	65	95	
		3 stage	19	72	
		4 stage	8	42	
5.	Any Comorbid Disease	Yes	18	66	**4.901 (0.027*)** [Chi square]
		No	77	146	
	a. Hypertension	No	80	148	**7.117 (0.008*)** [Chi square]
		Yes	15	64	

	b. Diabetes	No	84	180	0.673 (0.412)
		Yes	11	32	[Chi square]
	c. Thyroid Disorder	No	92	206	(1.000)
		Yes	3	6	[Fisher's exact]
	d. Asthma	No	92	207	0.865 (0.843)
		Yes	3	5	[Fisher's exact]
	e. Others Comorbid Illness	No	93	211	(0.227)
		Yes	2	1	[Fisher's exact]
a.	**Treatment-Related Variables**				
	a. Type Of Treatment Is Going On.	Chemotherapy	65	91	**17.997 (<0.001*)** [Fisher's exact]
		Radiotherapy	2	6	
		Both chemotherapy and radiotherapy	24	105	
		Other	4	10	
	b. Any Surgery Is Done.	Yes	43	124	**4.627 (0.031*)** [Chi square]
		N0	52	88	
b.	Anxiety	Yes	73	184	**4.764 (0.0291*)**

		No	22	28	[Chi square]
c.	Depression	Yes	70	192	**14.946 (0.001*)**
		No	25	20	[Chi square]

*Indicates significant at p<0.05

The results in table 11 indicate that the factors "Religion," "Education," "Community," "Marital Status," "Family Support," "Period of Illness," "Stage of Cancer," "Comorbid Diseases," "Hypertension," "Type of Treatment," "Surgery," Anxiety," and "Depression" are statistically significant (p-value < 0.05). Therefore, a multiple logistic regression analysis was conducted to explore the relationships between these factors and the level of stigma experienced by individuals.

SECTION – IV (b)

Multiple logistic regression analysis to find out the factors associated with Stigma among Cancer Patients.

The socio-demographic and clinical variables that were found statistically significant with Stigma in univariate analysis, such as those identified through the Chi-Square test or Fisher's Exact test, were taken for multiple logistic regression.

Table 12: Multiple logistic regression analysis to find out the factors associated with Stigma among Cancer Patients.

Variables	**P value**	**OR**	**95% C.I. for OR**

			Lower Limit	Upper Limit
RELIGION	.326			
Hindu	.134	1.833	.830	4.052
Muslim	1.000	411631.471	.000	.
EDUCATION	.943			
Unable to read and write	.076	.719	.226	2.287
Primary education and less	**.008***	1.012	.279	2.672
Secondary education	.814	.849	.217	3.324
Higher secondary education	.938	.932	.159	5.461
Rural Residence	**.002***	.236	.096	.578
MARITAL STATUS	.956			
Single	.792	1.202	.306	4.716
Married	.625	.534	.043	6.581
Divorced	.670	1.647	.166	16.365
Widowed	.999	442640850.349	.000	.
FAMILY SUPPORT	.039			

Mother-in-law/Father-in-law	.145	.341	.080	1.447
Mother/Father	**.046***	.228	.053	.975
Son/Daughter in law	.678	.777	.236	2.554
Husband/Wife	.985	1.019	.145	7.174
Brother/Sister	.933	1.125	.071	17.714
Daughter/Son in law	**.034***	.043	.002	.789
Period Of Your Illness	.916			
3-8 months	.863	1.070	.498	2.296
9-14 months	.862	.903	.286	2.856
15-20 months	.455	1.942	.341	11.074
21-25 months	.711	1.465	.195	11.009
Stage Of Cancer	.714			
1 stage	.874	.859	.131	5.645
2 stage	.734	1.412	.193	10.316
3 stage	.979	.969	.089	10.562
Any Comorbid Disease (Yes)	.772	1.217	.322	4.594

Hypertension (No)	.265	2.213	.548	8.936
Type Of Treatment Is Going On	.192			
Chemotherapy	.364	2.405	.362	15.986
Radiotherapy	.284.	2.480	.470	13.073
Both chemotherapy and radiotherapy	**0.036***	2.590	1.065	6.303
Any Surgery Done (Yes)	.233	1.708	.708	4.119
Anxiety	.949	.995	.860	1.152
Depression	**.013***	1.197	1.040	1.379

***Indicates significant at p<0.05

Table 12 shows the multiple logistic regression analysis results on factors linked to high Stigma. Participants with **primary education or less** are more likely to experience high stigma (p = 0.008, OR = 1.012). Those living in **rural residences** are less likely to experience stigma (p = 0.002, OR = 0.236) compared to urban residents. **Family Support from mother or father** (p = 0.046, OR = 0.228) and **support from daughter/son-in-law** (p = 0.034, OR = 0.043) both reduce the likelihood of experiencing stigma. On the other hand, participants undergoing **both chemotherapy and radiotherapy** are 2.590 times more likely to experience high stigma (p = 0.036, OR = 2.590). Finally, the participants who had a high probability of **depression** were 1.197 (p = 0.013, OR = 1.197) times more likely to experience Stigma as compared to normal

participants or who had no symptoms of depression, meaning that as depression severity increases, the likelihood of experiencing stigma also increases by 19.7%.

SECTION – IV (c)

Univariate analysis to find out the factors affecting Social Difficulties among Cancer Patients.

Table 13: Univariate analysis to find out the factors affecting Social Difficulties among Cancer Patients.

SI. NO.	Variables		Social Difficulties		Chi-square/Fisher's exact statistic (p-value)
			Social Difficulties Absent	Social Difficulties Present	
Socio-demographic variables					
1.	Age	18-28 yrs	4	5	**18.168 (<0.001*)** [Chi square
		29-39 yrs	19	32	
		40-50 yrs	22	84	
		51-61 yrs	19	55	
		>61 yrs	5	62	
2.	Gender	Male	38	101	3.447 (0.063)

		Female	31	137	[Chi square]
3.	Religion	Hindu	57	182	(0.4783) [Fisher's exact]
		Muslim	12	55	
		Christian	0	1	
4.	Education	Unable to read and write	10	43	6.26 (0.181) [Chi square]
		Primary education and less	15	64	
		Secondary education	21	85	
		Higher secondary education	17	36	
		College and above	6	10	
5.	Occupation	Housewife	27	85	**21.99 (<0.002*)** [Chi square]
		Government employee	2	9	
		Private employee	3	32	
		Have own business/Self-employed	34	62	

		Unemployed	3	50	
6.	Type Of Residence	Rural	14	85	**5.824 (0.0158*)** [Chi square]
		Urban	55	153	
7.	Marital Status	Single	2	19	(0.5369) [Fisher's exact]
		Married	64	201	
		Divorced	1	6	
		Widowed	2	8	
		Widower	0	4	
8.	Family Type	Nuclear	51	139	**(0.0340*)** [Fisher's exact]
		Joint Family	17	97	
		Single Parent Family	1	1	
		Grandparent Family	0	1	
9.	Family Support	Mother-in-law/Father-in-law	2	21	(0.930) [Fisher's exact]
		Mother/Father	12	25	
		Son/Daughter in law	2	80	
		Husband/Wife	45	95	

		Brother/Sister	3	10	
		Daughter/Son in law	5	2	
		Others	0	5	
10.	Socio-Economic Status	Lower	2	4	(0.4432) [Fisher's exact]
		Upper lower	25	107	
		Lower middle	27	83	
		Upper middle	14	43	
		Upper	1	1	
	Clinical Variables				
1.	Family History Of Cancer	Yes	2	7	(1.000) [Fisher's exact]
		No	67	231	
2.	Type Of Cancer.	Head and Neck Cancer	13	68	**(0.0014*)** [Fisher's exact]
		Breast Cancer	23	47	
		Gynecological cancer	9	65	

		Skin cancer	2	4	
		Lung cancer	6	17	
		GI tract cancer	2	22	
		Urinary tract cancer	5	2	
		Testicular cancer	2	0	
		Neurological cancer	0	3	
		Endocrine cancer	4	3	
		Sarcoma	0	2	
		Hematological cancer	3	5	
3.	Period Of Your Illness.	3-8 months	35	38	**38.045 (<0.001*)** [Chi square]
		9-14 months	22	99	
		15-20 months	6	56	
		21-25 months	4	22	
		>25 months	2	23	
4.	Stage Of Cancer.	1 stage	4	2	(0.056)
		2 stage	46	114	

		3 stage	17	74	[Fisher's exact]
		4 stage	2	48	
5.	Any Comorbid Disease	Yes	13	71	3.252 (0.0713) [Chi square]
		No	56	167	
	a. Hypertension	No	56	172	2.212 (0.1369) [Chi square]
		Yes	13	66	
	b. Diabetes	No	62	202	1.103 (0.2936) [Chi square]
		Yes	7	36	
	c. Thyroid Disorder	No	66	232	(0.4256) [Fisher's exact]
		Yes	3	6	
	d. Asthma	No	66	233	(0.3852) [Fisher's exact]
		Yes	3	5	

	e. Others Comorbid Illness	No	68	236	(0.5354) [Fisher's exact]
		Yes	1	2	
6.	**Treatment-Related Variables**				
	a. Type Of Treatment Is Going On.	Chemotherapy	54	102	1.153 (0.682) [Fisher's exact]
		Radiotherapy	2	6	
		Both chemotherapy and radiotherapy	12	117	
		Other	1	13	
	b. Any Surgery Is Done.	Yes	20	147	**23.17 (<0.001*)** [Chi square]
		N0	49	91	
7.	Anxiety	Yes	53	204	3.11 (0.0778) [Chi square]
		No	16	34	
8.	Depression	Yes	55	207	2.256 (0.1331) [Chi square]
		No	14	31	

*Indicates significant at p<0.05

The results in table 13 indicate that the factors "Age," "Occupation," "Community," "Family Type," "Type of Cancer," "Period of Illness," and "Surgery" are statistically significant (p-value < 0.05). Therefore, a multiple logistic regression analysis was conducted to examine the relationships between these factors and the level of social difficulties experienced by individuals.

SECTION – IV (d)

Multiple logistic regression analysis to find out the factors associated with Social Difficulties among Cancer Patients.

The socio-demographic and clinical variables that were found statistically significant with Social Difficulties in univariate analysis, such as those identified through the Chi-Square test or Fisher's Exact test, were taken for multiple logistic regression.

Table 14: Multiple logistic regression analysis to find out the factors associated with Social Difficulties among Cancer Patients.

Variables	**P value**	**OR**	**95% C.I. for OR**	
			Lower Limit	**Upper Limit**
AGE	0.118			
29-39 yrs	0.294	0.408	0.079	2.116
40-50 yrs	0.976	0.975	0.186	5.104
51-61 yrs	0.822	0.826	0.155	4.409

>61 yrs	0.072	6.094	2.309	15.932
OCCUPATION	0.660			
Government employee	0.6528	1.430	0.299	6.835
Private employee	0.0628	3.390	0.940	12.202
Have own business/Self-employed	0.0712	0.579	0.319	1.048
Unemployed	**0.008***	5.296	1.545	18.164
Rural Residence	**.018***	2.180	1.147	4.153
FAMILY TYPE	.020			
Nuclear	0.10	0.109	0.007	1.37
Joint Family	0.24	0.190	0.010	3.550
Single Parent Family	0.12	1.410	0.890	2.471
TYPE OF CANCER	.016			
Head and Neck Cancer	**.008***	4.951	1.530	16.020
Breast Cancer	0.43	0.722	0.321	1.623
Gynecological cancer	0.34	0.601	0.231	1.550
Skin cancer	0.17	4.261	0.622	29.41

Lung cancer	0.73	1.230	0.413	3.690
GI tract cancer	0.20	2.801	0.637	12.43
Urinary tract cancer	0.13	0.224	0.068	0.832
Testicular cancer	0.37	0.750	0.026	1.234
Neurological cancer	0.22	4.530	0.434	47.63
Endocrine cancer	0.52	1.671	0.354	7.951
Sarcoma	0.11	6.913	0.632	75.63
PERIOD OF YOUR ILLNESS	0.390			
3-8 months	**0.039***	.053	.012	.889
9-14 months	0.370	.0971	0.268	1.078
15-20 months	0.40	1.212	0.325	2.135
21-25 months	0.86	2.909	0.695	4.952
Any surgery done (Yes)	**0.001***	3.95	2.60	5.91

***Indicates significant at $p<0.05$

Table 14 presents the results of the logistic regression analysis examining factors associated with high social difficulties. **Unemployment** is strongly linked to high social difficulties ($p = 0.008$, OR = 5.296), with unemployed individuals being over five times more likely to face these difficulties than employed individuals. **Living in a rural community** also increases the

likelihood of high social difficulties (p = 0.018, OR = 2.18), making rural residents more than twice as likely to experience social challenges compared to urban residents. **Head and neck cancer** is associated with a significantly higher chance of experiencing social difficulties (p = 0.008, OR = 4.95), with individuals in this category being nearly five times more likely to face these difficulties. Interestingly, individuals with a **3-8 months illness duration** (p = 0.039, OR = 0.053) are much less likely to experience high social difficulties, being about 95% less likely than those with longer illness durations. Lastly, **surgery** is strongly associated with high social difficulties (p = 0.001, OR = 3.95), with those who have undergone surgery almost four times more likely to experience such difficulties compared to those who haven't.

SECTION – V

Spearman's Correlation Coefficient to find out the relationship between Stigma and Social Difficulties among Cancer Patients.

H0: There is no significant relationship between Stigma and Social Difficulties among Cancer Patients.

- Spearman's Correlation is used due to the violation of normality assumptions.

Table 15: Spearman's Correlation Coefficient to find out the relationship between Stigma and Social Difficulties among Cancer Patients.

Correlation between	Correlation Coefficient (r)	P value	Interpretation
Stigma and Social Difficulties	0.734	<0.001*	Moderate positive correlation

*Indicates significant at p<0.05

Table 15 presents the correlation coefficient (r = 0.734), indicating a **moderate positive correlation**, suggesting that as Stigma increases, social difficulties also tend to increase, though the relationship is not perfectly linear. The **p-value (<0.001)** is statistically significant (**$p < 0.05$**), meaning that the observed correlation is highly unlikely to have occurred by chance. Therefore, the **null hypothesis (H_0), which states that there is no significant relationship between stigma and social difficulties, is rejected**. And this finding suggests a strong association between these two factors.

CHAPTER V

DISCUSSION

CHAPTER 5

DISCUSSION

This chapter provides a comprehensive discussion of the study's major findings, strengths, limitations, implications, and recommendations.

The major findings of the study are discussed under the following categories:

SECTION I: Description of Socio-Demographic Variable of Cancer Patients.

SECTION II: Description of Clinical Variable of Cancer Patients.

SECTION III: Description of Stigma among Cancer Patients.

SECTION – IV: Description of Social Difficulties among Cancer Patients.

SECTION V: level of Stigma and Social Difficulties among Cancer Patients.

SECTION VI: Factors Associated with Stigma among Cancer Patients.

SECTION VII: Factors Associated with Social Difficulties among Cancer Patients.

SECTION VIII: Relationship between the Stigma and Social Difficulties among Cancer Patients.

SECTION I:

Description of Socio-Demographic Variables of Cancer Patients

- Majority of participants belong to the 40-50 age group (34.53%), followed by 51-61 years (24.10%), and Females constitute 54.72% of the participants, while males make up 45.28%.
- Most participants are Hindu (77.85%), with Muslims forming 21.82%.
- Regarding education, 34.53% have secondary education, and 25.73% have primary or less education.
- Urban residents form the majority (67.75%), while 32.25% live in rural areas, and a significant proportion are housewives (36.48%), followed by self-employed individuals (31.27%).
- Most participants are married (86.32%) and belong to nuclear families (61.89%).
- Family support is predominantly from spouses (45.60%), followed by sons/daughters-in-law (26.71%).
- The largest socio-economic group is the upper-lower class (43.00%), followed by the lower-middle class (35.83%).

SECTION II:

Description of Clinical Variables of Cancer Patients

- Only 2.93% have a family history of cancer, with 97.07% reporting no such history.
- The most common types of cancer are head and neck cancer (26.38%), gynecological cancer (24.10%), and breast cancer (22.80%).
- A significant proportion have been ill for 9-14 months (39.41%), and Stage 2 cancer is most common (52.12%), followed by stage 3 (29.64%).

- Comorbidities are reported by 27.36%, with hypertension being the most common (25.73%), while diabetes affects 14.01%.
- Chemotherapy is the primary treatment for 50.81%, 42.02%undergoing both chemotherapy and radiotherapy, and 54.40% have undergone surgery.

SECTION III:

Description of Stigma among Cancer Patients

1) **Perceptions of Cancer and Recovery**:
    - 73.6% strongly agree that it is difficult to regain health after a cancer diagnosis.
    - 66.4% agree that they would not remain socially active.
2) **Stereotypes**:
    - 61.6% believe cancer patients deserve societal protection.
    - 48.2% think cancer patients are easily recognized by their appearance.
3) **Social Discrimination**:
    - 66.4% report family or marital problems due to cancer.
    - 31.6% feel neighbors avoid interacting with them.

SECTION IV:

Description of Social Difficulties among Cancer Patients

1) **Everyday Living**:
    - 54.1% report difficulty with personal care.

- 37.5% have challenges caring for dependents.
- Recreational activities are affected in 63.2% of participants.

2) **Money Matters**:

- 36.2% face significant financial difficulties and 49.8% struggle with financial services.

3) **Self and Others**:

- 45.2% feel socially isolated.
- Communication difficulties with close family are reported by 33.3%.

SECTION V:

Level of Stigma and Social Difficulties among Cancer Patients

1) **Stigma**:

- Median stigma score: 2.50 (IQR: 2.33 – 2.75).
- 69.06% report a high stigma level, and 30.94% report a low stigma.

2) **Social Difficulties**:

- Median social difficulties score: 19.00 (IQR: 16.00 – 22.00).
- 77.52% report significant social difficulties, while 22.48% report minimal or no difficulties.

SECTION VI:

Factors Associated with Stigma among Cancer Patients

1) **Univariate Analysis**: Factors significantly affecting stigma include education, marital status, stage of cancer, type of treatment, and depression.

2) **Multiple Logistic Regression**:

    - Participants with primary education or less are more likely to experience high stigma (p = 0.008, OR = 1.012).
    - Rural communities are less likely to experience stigma (p = 0.002, OR = 0.236).
    - Family support from mother/father (p = 0.046, OR = 0.228) or daughter/son-in-law (p = 0.034, OR = 0.043) reduces stigma.
    - Both chemotherapy and radiotherapy treatment increase stigma (p = 0.036, OR = 2.590).
    - Depression is strongly associated with stigma (p = 0.013, OR = 1.197).

SECTION VII:

Factors Associated with Social Difficulties among Cancer Patients

1. **Univariate Analysis**: Significant factors include age, occupation, type of cancer, duration of illness, and surgery.
2. **Multiple Logistic Regression**:

    - Unemployment is associated with higher social difficulties (p = 0.008, OR = 5.296).
    - Rural residents face more difficulties (p = 0.018, OR = 2.18).

- Individuals with a 3-8 months illness duration ($p = 0.039$, OR = 0.053) are much less likely to experience high social difficulties, being about 95% less likely than those with longer illness durations.

- Head and neck cancer significantly increases social difficulties ($p = 0.008$, OR = 4.95).

- Surgery is strongly linked to social difficulties ($p = 0.001$, OR = 3.95).

SECTION VIII:

Relationship Between Stigma and Social Difficulties among Cancer Patients

- A moderate positive correlation ($r = 0.734$, $p < 0.001$) is observed between Stigma and Social Difficulties, indicating that social difficulties also increase as stigma increases.

DISCUSSION

The findings from this study provide a comprehensive understanding of the stigma and social difficulties faced by cancer patients, alongside the factors that influence these challenges. The results highlight the prevalence of stigma and social difficulties in cancer patients, as well as the significant socio-demographic and clinical factors contributing to these experiences. Additionally, the moderate positive correlation between stigma and social difficulties emphasizes the need to address both cancer care and support systems. This discussion will provide a deeper interpretation of the results and relate them to existing literature.

The present study collected information from 307 cancer patients attending the Oncology Outpatient Department (OPD) at All India Institute of Medical Sciences (AIIMS), Bhopal, to

assess the Stigma, Social Difficulties, and its Associated Factors. The median stigma score was 2.50, with 69.06% reporting a high stigma level, 30.94% reporting low stigma, and the Median social difficulties score was 19.00, with 77.52% reporting significant social difficulties, while 22.48% reporting minimal or no difficulties. The statistically significant ($p < 0.05$) factor associated with Stigma identified using multiple logistic regression was "Primary education and less, living in a Rural Residence, family support of Mother/Father and Daughter/Son in law, Both chemotherapy and radiotherapy treatment and Depression among cancer patients" resulting in a high level of Stigma. The statistically significant ($p < 0.05$) factor associated with Social Difficulties identified using multiple logistic regression was "Unemployment, living in a Rural Community, Head and Neck Cancer, Period of Illness (3-8 months), and Surgery is done among cancer patients" resulting in high Social Difficulties. A moderate positive correlation ($r = 0.734$, $p < 0.001$) was observed between Stigma and Social Difficulties.

1. Socio-Demographic Characteristics of Cancer Patients

The present study revealed that most participants belonged to the 40-50 age group (34.53%), followed by 51-61 years (24.10%), with females constituting 54.72% of the sample. These findings resonate with those of **Nath et al. (2022),** in which the latest data on lung cancer from the NCRP were collated from 28 population-based cancer registries and 58 hospital-based cancer registries across a five-year (2012-2016) reporting period, who reported a similar demographic distribution among Indian cancer patients, where 36% were aged 41-50 years, and 52% were female. These findings suggest that middle-aged individuals, particularly females, are more likely to be diagnosed with cancer, which may be attributed to increased screening efforts and awareness in this age group[70]. However, Western studies, such as **Song et al. (2016)** (A total of 89 571 women and 46 339 men from 2 cohorts were included in the study), also found that individuals in this age group have increased cancer prevalence due to

lifestyle factors and genetic predispositions[71]. A similar study conducted by **Tripathi et al. (2017)** (N=134) found that 38% of cancer patients belonged to the 41-50 age group, reinforcing the trend observed in this research[72]. This is consistent with **Davis et al. (2021)** (N= 1,148) **and Tu et al. (2024)** (N=312), who found that females are more likely to seek medical attention and participate in screening programs, leading to earlier diagnoses[73,74].

Educational background also plays a crucial role in cancer awareness, timely diagnosis, and treatment adherence. The present study found that 34.53% of participants had secondary education, while 25.73% had only primary or lower levels of education. Comparatively, a study by **Zhang et al. (2021)** (N=412) reported that 45% of their study population had only primary education, and this group showed lower health literacy and reduced cancer awareness[75]. **Squiers et al. (2021)** (N = 310)**, de Almeida et al. (2022) (N=81,669),** and **Mathew et al. (2022)** (N=3640) found that patients with lower education levels were less likely to participate in cancer screenings, leading to late-stage diagnoses. This aligns with the current study's findings, which indicate that individuals with limited education are more prone to experiencing delays in seeking medical care due to a lack of awareness about symptoms and available treatments[76–78].

Occupational status is another factor influencing cancer patients' experiences and treatment access. This study found that 36.48% of participants were housewives, followed by self-employed individuals (31.27%). A similar occupational distribution was found in the study by **Zhang et al. (2024)** (N=210), which found that employed cancer patients had lower levels of depression and social difficulties, highlighting the importance of financial stability in managing cancer-related stress[79]. **Tamminga et al. (2020)** (N=102) and **Andreu et al. (2023)** (N=772) found that employed participants reported better quality-of-life outcomes[80,81]. In this study, unemployed individuals were found to have greater social difficulties, similar to the findings

of **Sahoo et al. (2019)** (N = 430), where unemployed cancer patients reported increased stress and a higher likelihood of treatment discontinuation[19].

Urban residency was predominant in this study (67.75%), aligning with **Khanna et al. (2024)** (N=6721), who found that 69% of cancer patients in their study were from urban settings and their urban populations experience unhealthy lifestyles, while their rural populations lack healthcare accessibility[82]. **Zhang et al. (2013)** (N=2,139) and **Bhatia et al. (2022) (N=242)** found that rural cancer patients were more likely to suffer from social isolation due to a lack of awareness and community support programs[83,84].

Marital status and family support play a crucial role in the psychological and social well-being of cancer patients. This study found that 86.32% of participants were married, suggesting that most patients had spousal support during their cancer journey. **Singh et al. (2023)** (N=96), **Aizer et al. (2013)** (N=1,260,898), and **Krajc et al. (2023) (N=2,423)** similarly reported that married cancer patients experienced better emotional and financial support compared to unmarried or widowed individuals. However, widowed and single patients in both studies faced greater social isolation and financial hardships[11,85,86]. **Dionne-Odom et al. (2023)** (N=2,703) and **Brajković et al. (2023)** (N=338) emphasized the psychological benefits of familial involvement in treatment, highlighting the importance of strong familial bonds in mitigating the emotional distress associated with cancer[87,88].

Socioeconomic status is another major determinant of healthcare access and treatment affordability. The present study found that 43% of participants belonged to the upper-lower socio-economic class, while 35.83% were from the lower-middle class. Financial constraints significantly impact cancer treatment, as reported by **Knaul et al. (2019)** (N = 980), **Yabroff et al. (2016)** (N=1,201), and **Kitwa et al. (2025)** (N= 4,28,373), where Over half of the cancer patients (56.1%) with low income face catastrophic health expenditures, highlighting a severe

financial burden worldwide and face difficulties in affording treatment[26,89,90]. Similarly, **Khanna et al. (2024)** (N=6721) found that 72% of rural cancer patients in India and **Takeuchi et al. (2018)** (259) found that financial instability exacerbates social difficulties and stigma, leading to poorer mental health outcomes, prolonged treatment, resulting in discontinuation or delays in therapy[45,91]. The findings from the present study reinforce the need for targeted financial assistance programs to improve treatment adherence among lower-income groups.

2. Clinical Characteristics of Cancer Patients

In this study, only 2.93% of participants reported a family history of cancer. This finding aligns with **He et al. (2023) (N=3,75,998)** and **Sandhu et al. (2024) (N=**, who found that genetic predisposition accounts for a small proportion of cancer diagnoses, with environmental and lifestyle factors playing a more significant role[92,93]. Similarly, **Yu et al. (2022)** (N= 563) and **Zhang et al. (2025)** (N= 66308). Genetic and lifestyle factors were independently associated with early-onset total and cancer risk. Individuals with a high genetic risk may benefit more from adopting a healthy lifestyle in preventing early-onset cancer[94,95].

This study identified head and neck cancer (26.38%), gynecological cancer (24.10%), and breast cancer (22.80%) as the most prevalent cancer types among participants. These findings align with **Zhang et al. (2020)** (N=230), who found head and neck cancers to be the most common (27%) among their study population, followed by breast cancer (23%) and gynecological cancers (22%)[43]. A similar finding by **Smith et al. (2024)** (N= 20,850) revealed that from 2001–2005 to 2016–2020, the overall age-standardized HNC incidence rate increased by 5%[96].

A significant proportion of participants (39.41%) had been diagnosed with cancer for 9-14 months. **Yılmaz et al. (2019)** (N=303) found that the length of illness influences patients' psychological adjustment, with those diagnosed for a longer duration experiencing increased

distress and stigma. A significant proportion of participants (52.12%) were diagnosed with Stage 2, followed by Stage 3 (29.64%)[41], and it was similar to the findings of **Tripathi et al. (2017)** (N=134), where 49% of cancer patients were diagnosed at stage 2[72]. Additionally, **Bray et al. (2018)** underscored that early detection leads to significantly improved survival rates, with their study showing that 78% of stage 1 cancer patients survived beyond five years, compared to 42% of stage 3 patients[97].

Among other clinical variables, 27.36% of participants reported comorbid conditions, with hypertension (25.73%) and diabetes (14.01%) being the most common. These results are in line with the study by **Patel et al. (2023)** (N = 560), where 29% of cancer patients had at least one comorbid condition, which was found to exacerbate treatment complications and increase psychological distress[98].

Additionally, the treatment modalities in this study showed that 50.81% of participants were undergoing chemotherapy, 42.02% were undergoing both chemotherapy and radiotherapy, and 54.40% had undergone surgery. Similar findings were reported by **Mee et al. (2023)** (**N = 1,029,569),** where 31% of the participants received chemotherapy, 45% received both chemotherapy and radiotherapy, and 64% received surgery[99].

3. Stigma Among Cancer Patients

Prevalence and Contributing Factors

Stigma is a significant psychosocial burden for cancer patients, influencing their emotional well-being, treatment adherence, and overall quality of life. The present study revealed that a majority of cancer patients (69.06%) experienced a high level of stigma. Medine **Yılmaz et al. (2019)** (N = 303) found that 63% of cancer patients in Turkey reported moderate to severe stigma[41], and **Fujisawa et al. (2020)** (N=628) reported that perceived cancer-related stigma

was endorsed by 61.2% of Japanese cancer survivors[57], while **Zamanian et al. (2022) (N=221)** observed that 68% of Iranian cancer patients experienced high stigma levels, leading to increased social withdrawal and treatment non-adherence[100]. Similarly, **Wu et al. (2023)** (N=36) found that breast cancer patients experienced stigma at multiple levels, including perceived, internalized, and enacted stigma, affecting their overall well-being[101].

The study also examined various socio-demographic and clinical factors associated with stigma. The **multiple logistic regression analysis** found that certain factors significantly impacted the level of stigma that cancer patients experienced.

For instance, patients with lower educational levels (unable to read and write or having only primary education) ($p = 0.008$, $OR = 1.012$) were more likely to experience high stigma. This aligns with previous findings that suggest that people with limited education may have less knowledge about cancer and may, therefore, hold more negative views about it, as reported by **Sathishkumar et al. (2022)** (N=599); **Squiers et al. (2021)** (N=20); **Vrinten et al. (2019)** (N=1916)[8,18,102]. It is important to note that education often plays a crucial role in shaping one's understanding of illness and fostering empathy, and lower education may lead to greater misunderstanding, stigmatization of cancer patients, and leading to greater societal discrimination. Moreover, a study by **Knaul et al. (2019)** and **Jeudine et al. (2023)** (N=120) also found that higher education was associated with improved participation in cancer screening programs, reducing the stigma linked to late diagnosis[103,104]. A study by **Suwankhong & Liamputtong (2016)** (N=20) identified that lower education levels correlated with higher perceived stigma due to misinformation about cancer[105].

In addition, the type of residency was also found to influence stigma levels. The analysis revealed that rural residents ($p = 0.002$, $OR = 0.236$) were less likely to report stigma than their urban counterparts. This may be because urban areas, with higher population density and more

social interactions, might expose cancer patients to more stigmatizing attitudes and behaviors. On the other hand, findings revealed that rural communities might have different cultural perceptions of cancer, which could contribute to lower levels of stigma by **Hasan Shiri et al. (2018)** (N=142)[48].

Furthermore, family support was found to reduce stigma. In this study, participants who received support from their mother/father (p = 0.046, OR = 0.228) or daughter/son-in-law (p = 0.034, OR = 0.043) experienced lower levels of stigma. This aligns with previous studies emphasizing the importance of strong family networks in mitigating the psychological burden of cancer **Jr et al. (2001)**[106] (N=336) and also, a study by **Neuling and Winefield et al. (1988)** (N=492) found that those satisfied with support from family members were significantly less anxious and depressed in the hospital than were those who were not satisfied with support from this source[107]. The findings of **Hasan Shiri et al. (2020) (2022)** (N=14) demonstrated that strong familial involvement enhances psychological resilience and improves treatment adherence, reducing feelings of isolation and distress[33,108], and similar findings by **Haj Hashemi et al. (2021)** (N=340) suggest that perceived social support from family members helps improve psychological hardiness and quality of life[109]. More recently, **Kang et al. (2020)** (N=158) Zhang et al. (2020) (N=230) and identified that family support reduces stigma and improves adherence to long-term treatment plans, which further improves the quality of life **Zamanian et al. (2022)** (N=221)[43,91,100].

The type of treatment cancer patients undergo is another important factor associated with stigma. Those receiving both chemotherapy and radiotherapy (p = 0.036, OR = 2.590) reported higher stigma levels. These treatments often lead to visible and socially recognizable side effects, such as hair loss, skin changes, and fatigue, which can make patients more vulnerable to discrimination and negative societal attitudes **Zhang et al., (2020)** (N=230)[43].

The psychological distress caused by stigma can manifest in numerous ways. This study finding revealed that participants who had a high probability of depression (p = 0.013, OR = 1.197) were more likely to experience Stigma as compared to normal participants or who had no symptoms of depression; this aligns with studies showing that the level of depression correlates with the degree of perceived stigma **Medine Yılmaz et al., (2020)** (N=303)[41] and **Cho et al. (2013)** (N=466)[51] with findings indicating that patients suffering from cancer-related stigma tend to have higher levels of depressive symptoms, which further reduce their quality of life **Zamanian et al., (2022)** (N=221)[100]. A study by **Bu et al. (2022)** (N=200)[110] and **Vizin et al. (2023)** (N=99)[111] In breast cancer patients, it has been revealed that stigma can worsen depressive symptoms by reinforcing negative feelings about their appearance or social identity following surgery **Tripathi et al. (2017)** (N=134)[72]. As such, the intersection between stigma and mental health necessitates an integrated approach to cancer care that addresses not only the physical aspects of the disease but also the psychological impact of stigma.

4. Social Difficulties among Cancer Patients

Prevalence and Contributing Factors

Social difficulties are common among cancer patients due to the long-term physical, psychological, and financial burdens of the disease. In this study, a high percentage of participants (77.52%) reported significant social difficulties, which is consistent with findings from **Wright et al. (2011)** (N=652), who found that 74% of cancer patients in low-income settings faced social exclusion and financial hardships[64]. **Mosleh et al. (2018)** (N=226) reported that 79% of patients experienced difficulties maintaining personal relationships and impacting work and daily activities, particularly due to financial burden and treatment-related side effects. These difficulties can lead to a decline in the quality of life for cancer patients[47].

Similarly, **Takeuchi et al. (2018)** (N=259) found that cancer patients experience considerable social isolation, particularly those with visible treatment side effects such as hair loss and weight changes[45].

The **multiple logistic regression analysis** findings indicate that several socio-demographic and clinical factors were significantly associated with social difficulties.

Being unemployed (p = 0.008, OR = 5.296) was strongly associated with higher social difficulties or being more likely to experience social difficulties than being employed. This finding aligns with **Wright et al. (2005)** (N=609), which found that unemployment and financial burden exacerbated social difficulties and increased psychological distress[112]. Additionally, **Chen et al. (2021)** (N=136,342) highlighted that unemployment following a cancer diagnosis increases the risk of depression and social disengagement, making it difficult for patients to reintegrate into society[113]. Similarly, **Gonzalo et al. (2021)** (N=1,218) found that 78% of unemployed cancer patients had difficulty accessing support groups and community services due to financial constraints, which further worsened their social difficulties[114].

Other socio-demographic factors, such as type of residency, were also found to influence social difficulties. This study's findings revealed that participants living in a rural community (p = 0.018, OR = 2.18) were more likely to experience social difficulties than participants living in an urban community. These findings align with those of **Egilsdóttir et al. (2022)** (N=7) and **Charlton et al. (2015)**, who indicated that rural cancer patients who travel long distances to seek treatment show greater problems with daily tasks, travel, and household responsibilities[115,116]. Additionally, **Pringle et al. (2024)** found that rural cancer patients, low socioeconomic status, and racially and ethnically diverse patients reduced their social

participation due to financial stress and transportation barriers preventing them from attending support groups or follow-up care[117].

The type of cancer diagnosis was also found to influence social difficulties. For instance, this study finding revealed that patients with head and neck cancer (p = 0.008, OR = 4.95) reported significantly more social difficulties than those with other types of cancer. This finding aligns with those of **Aa et al. (2024)** (N=29), suggesting that among head and neck cancer patients, the distress level was approximately 54%, emotional problems ranged between 10 and 44%, and financial difficulties were identified in 54% of the patients[118]. **Hagedoorn and Molleman et al. (2006)** (N=76)[119] found that 76% of head and neck cancer patients reported social anxiety due to the visible disfigurement and suffered from shame and stigma due to speech impairments caused by treatments for head and neck cancer **Peng et al. (2024)** (N=178)[56], which can lead to feelings of embarrassment and social withdrawal. Additionally, **Lebel et al. (2013)** (N=206) indicated that patients with head and neck cancer often faced workplace discrimination and had difficulty reintegrating into society after treatment[120].

This study revealed that individuals with a 3-8 months illness duration (p = 0.039, OR = 0.053) are much less likely to experience high social difficulties, being about 95% less likely than those with longer illness durations. This finding aligns with **Zhang et al. (2020)** (N=3,068), which indicated that patients with less illness periods were more engaged in social interactions because they were still actively working or receiving structured support from their community[121]. **Z et al. (2021)** (N=31) found that patients had a lower perception of stigma and social withdrawal during this period, as physical side effects were not yet fully manifest, and functional impairments were less pronounced[122]. **Yigitbas et al. (2024)** (N=387) found that newly diagnosed cancer patients reported lower social difficulties due to increased medical attention, social support, and financial aid programs available at the start of treatment[123].

Additionally, **Oberoi et al. (2020)** (N=28) found that patients with less illness period were more engaged in mindfulness activities rather than those with longer illness duration, which leads to increased emotional distress and relationship strain, leading to greater social exclusion and dependence on caregivers and to decreased quality of life[124].

Surgery performed, the extent of physical changes, and the visibility of surgical scars all influence a patient's self-esteem, body image, and social interactions; in this study, participants who had undergone surgery (p = 0.001, OR = 3.95) were more likely to report social difficulties, which could be linked to the physical and emotional recovery required after surgical treatment **Zhang et al., (2020)** (N=230)[43]. **Gass et al. (2019)** (N=500) reported that the majority of respondents (74% of lumpectomy-only patients and 86% of mastectomy patients), "Yes, scars do matter," and surgical scars are associated with a negative impact in their daily lives. Breast cancer patients who underwent mastectomy were 45% more likely to experience social withdrawal compared to those who had breast-conserving surgery[125]. Similarly, **Kang et al. (2020)** (N=158) and **Zhu et al. (2023)** (N=212) reported that patients who underwent mastectomy or other invasive surgeries often experienced heightened social difficulties or relatively poorer social participation due to perceived stigma and altered body image[91,126]. **Teruya et al. (2019)** (N=57) indicated that patients who underwent total laryngectomy were more likely to experience social isolation due to difficulties in communication[127]. Finally, **Zhang et al. (2024)** (N=210) found that 62% of colorectal cancer patients with a colostomy bag reported avoiding social gatherings due to fear of embarrassment or leakage[79].

5. Correlation Between Stigma and Social Difficulties

One of the most significant findings in this study was the moderate positive correlation between stigma and social difficulties, with a correlation coefficient (r) of 0.734. This suggests that as

stigma increases, social difficulties also tend to increase. The statistically significant p-value (<0.001) confirms that this correlation is unlikely to have occurred by chance. This finding supports the idea that stigma and social difficulties are interconnected: the more stigmatized a cancer patient feels, the more likely they are to experience social challenges. This is consistent with the work of **Zhang et al. (2020)** (N=230)[43], which found that patients with high stigma levels were twice as likely to report difficulties in social reintegration as they avoided social interactions due to fear of judgment and **Hasan Shiri et al. (2022)** (N=14) reported that patients experiencing stigma due to visible cancer symptoms or treatment side effects had higher social withdrawal rates, contributing to reduced quality of life[108]. Similarly, **Kang et al. (2020)** (N=158) observed that patients with cancer-related stigma reported significantly lower social support and family relationships, leading to greater social difficulties[91]. Additionally, **Sahoo et al. (2019)**[19] indicated that patients experiencing unemployment due to their illness were more prone to self-stigmatization, perceiving themselves as socially and economically unproductive, feeling of worthlessness or being a burden, loss of interest or enjoyment, leading to financial constraints **Eyu et al. (2024)** (N=217)[128]. **Liamputtong and Rice (2021)** reported that people who experienced higher stigma levels faced greater social challenges, such as discrimination and employment difficulties[129].

IMPLICATIONS OF THE STUDY FINDINGS

1) The need for psychosocial support programs tailored to address the emotional and mental health needs of cancer patients. It emphasized the importance of counseling and support groups in reducing stigma in Indian settings[130].

2) Additionally, healthcare providers should be mindful of the role of family support in mitigating stigma and social difficulties. Strengthening family involvement and

providing counseling or support groups for both patients and families could help reduce the psychological impact of cancer[131].

3) Awareness campaigns or educational campaigns aimed at increasing cancer awareness and challenging misconceptions about the disease could be an effective way to reduce stigma and improve cancer literacy, especially in rural areas[130].

4) Establishment of financial support systems to alleviate the economic burden of cancer care[132].

5) Tailored Interventions for Vulnerable Groups like Unemployed individuals, rural residents, and those with head and neck cancers require targeted interventions to address their unique challenges. Programs providing vocational training and rehabilitation can mitigate unemployment-related difficulties, while rural outreach programs can improve healthcare access and reduce stigma[133].

6) Holistic, patient-centered care involves integrated models addressing cancer's psychological and social aspects. Multidisciplinary teams, including oncologists, psychologists, and social workers, can provide comprehensive, personalized care. Approaches like the Patient-Centric Integrative Supportive Care Model at AIIMS and the C3PaC model in North India highlight the importance of coordinated care to meet the unique needs of cancer patients[134–136].

7) Policymakers should prioritize creating and funding programs that reduce stigma and provide financial aid, particularly for marginalized populations[130].

STRENGTHS OF THE STUDY

1) **Comprehensive Framework:** This study integrates socio-demographic, clinical, and psychosocial dimensions to better understand stigma and social difficulties among cancer patients. This multidimensional approach offers a broad perspective that captures the complex interplay of various factors.

2) **Robust Methodology:** The use of validated tools, logistic regression analysis, and Spearman's correlation enhances the rigor of the study. These statistical methods provide robust insights into the associations and relationships between key variables.

3) **Representative Sample Size:** The study's sample size of 307 participants ensures adequate representation and enhances the reliability and statistical power of the findings, making them generalizable within similar healthcare settings.

4) **Focus on Underexplored Areas:** By addressing stigma and social difficulties specifically within an Indian context, the study sheds light on an underexplored aspect of cancer care. This focus is critical for developing culturally appropriate interventions and policies.

5) **Practical Relevance:** The study highlights actionable findings, such as the impact of education, unemployment, and rural residency on stigma and social difficulties. These insights can directly inform public health strategies, clinical practices, and policy formulation.

6) **Foundation for Future Research:** This study lays the groundwork for future longitudinal and interventional research to mitigate stigma and improve cancer patients' psychosocial well-being by identifying significant associations and gaps.

LIMITATIONS AND FUTURE DIRECTIONS

While this study provides valuable insights, some limitations must be acknowledged.

- Only one setting was involved in this study, which may limit the generalizability of the findings. Future research should include multiple centers and diverse populations to enhance the generalizability of the results.
- The cross-sectional design limits the ability to establish causality between variables.
- The study relied on self-reported measures, which may be subject to bias. Future research should consider using objective measures to complement self-reported data.
- Future research should consider longitudinal studies to explore the temporal relationship between stigma, social difficulties, and associated factors.
- Additionally, qualitative studies could provide deeper insights into the lived experiences of cancer patients.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed to reduce stigma and social difficulties among cancer patients:

1) **Psychosocial Support Programs**: Establish organized psychosocial interventions such as counseling and peer support groups to assist cancer patients in managing stigma and social challenges.
2) **Educational Campaigns:** Carry out awareness initiatives aimed at informing the public and healthcare professionals about the stigma associated with cancer and its effects on patients' well-being.
3) **Policy Interventions:** Advocate for healthcare policies that tackle social discrimination towards cancer patients, including programs for workplace reintegration and financial assistance for those affected.

4) **Community-Based Support Systems:** Enhance community engagement efforts to promote inclusivity and provide emotional and practical help to cancer patients and their families.
5) **Media Representation:** Encourage positive representations of cancer survivors in the media to help shift public perceptions and lessen societal stigma.
6) **Healthcare Provider Training:** Provide training for medical professionals on the psychosocial dimensions of cancer care, equipping them with the necessary skills to assist patients facing stigma and social challenges.
7) **Develop Tailored Support for Vulnerable Groups:** Initiatives should focus on the specific needs of head and neck cancer patients and those in rural areas by including rehabilitation services, speech therapy, and community support groups.
8) **Research and Data Collection:** Promote further research on stigma and social issues experienced by cancer patients to create evidence-based interventions that cater to various cultural settings.
9) **Social Reintegration Initiatives:** Create programs for reintegration in workplaces and schools to aid cancer survivors in returning to their daily activities without facing discrimination.
10) **Access to Mental Health Services:** Ensure that all cancer patients can access mental health services, including therapy and psychiatric support, to address emotional distress related to stigma and social difficulties.
11) **Collaboration with NGOs:** Collaborate with non-governmental organizations (NGOs) to offer support services, financial assistance, and advocacy efforts for cancer patients experiencing social exclusion.

CONCLUSION

This research emphasizes the considerable effect of stigma and social difficulties on cancer patients. The findings indicate that a significant number of patients encounter both stigma and social difficulties, influenced by various socio-demographic and clinical factors. The moderate positive correlation between stigma and social challenges further underscores the necessity of addressing these issues concurrently in cancer care. Interventions aimed at education, family support, and specific patient demographics could help reduce the stigma and social difficulties faced by cancer patients, ultimately enhancing their quality of life and mental health.

REFERENCES

REFERENCES

1. Bray F, Laversanne M, Sung H, Ferlay J, Siegel RL, Soerjomataram I, et al. Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA A Cancer J Clinicians 2024;74(3):229–63.

2. GLOBOCAN 2022: Latest global cancer data shows rising incidence and stark inequities | UICC [Internet]. [cited 2025 Feb 17];Available from: https://www.uicc.org/news-and-updates/news/globocan-2022-latest-global-cancer-data-shows-rising-incidence-and-stark

3. New report on global cancer burden in 2022 by world region and human development level [Internet]. [cited 2025 Feb 17];Available from: https://www.iarc.who.int/news-events/new-report-on-global-cancer-burden-in-2022-by-world-region-and-human-development-level

4. Ferlay J, Ervik M, Lam F, Laversanne M, Colombet M, Mery L, et al. Global Cancer Observatory: Cancer Today. 2024.

5. Filho AM, Laversanne M, Ferlay J, Colombet M, Piñeros M, Znaor A, et al. The GLOBOCAN 2022 cancer estimates: Data sources, methods, and a snapshot of the cancer burden worldwide. International Journal of Cancer 2025;156(7):1336–46.

6. Cancer [Internet]. [cited 2025 Feb 17];Available from: https://www.who.int/news-room/fact-sheets/detail/cancer?gad_source=1

7. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. CA: A Cancer Journal for Clinicians 2021;71(3):209–49.

8. Sathishkumar K, Chaturvedi M, Das P, Stephen S, Mathur P. Cancer incidence estimates for 2022 & projection for 2025: Result from National Cancer Registry Programme, India. Indian Journal of Medical Research 2022;156(4 & 5):598–607.

9. Youyang Wang, Wei Feng. Cancer-related psychosocial challenges. General Psychiatry 2022;35(5):e100871.

10. Singer S. Psychosocial Impact of Cancer. In: Recent Results in Cancer Research. 2018. page 1–11.

11. Singh K, Dogra E, Pal KM, Negi RR, Vardhan R, Sharma R, et al. Factors Impacting Quality of Life of Caregivers of Cancer Patients in the Sub-Himalayan Region: A Cross-Sectional Study. Cureus [Internet] 2023 [cited 2025 Feb 16];Available from: https://www.cureus.com/articles/130309-factors-impacting-quality-of-life-of-caregivers-of-cancer-patients-in-the-sub-himalayan-region-a-cross-sectional-study

12. Johnson SE, Samson M. Cancer stigma: the need for policy and programmatic action. JNCI Monographs 2024;2024(63):45–50.

13. Heley K, Vanderpool RC, Vedham V. Global cancer stigma research: a U.S. National Cancer Institute workshop report. JNCI Monographs 2024;2024(63):4–10.

14. Common Cancer Myths and Misconceptions - NCI.

15. Ajith K, Sarkar S, Sethuramachandran A, Manghat S, Surendran G. Myths, beliefs, and attitude toward cancer among the family caregivers of cancer patients: A community-based, mixed-method study in rural Tamil Nadu. Journal of Family Medicine and Primary Care [Internet] 2023;12(2). Available from:

https://journals.lww.com/jfmpc/fulltext/2023/02000/myths,_beliefs,_and_attitude_toward_cancer_among.16.aspx

16. Heley K, Vanderpool R, Chomenko D, Klein A, Vedham V. The Crucial Role of Research in Addressing Global Cancer Stigma.

17. Hasan Shiri F, Mohtashami J, Manoochehri H, Rohani C. Explaining the Meaning of Cancer Stigma from the Point of View of Iranian Stakeholders: A Qualitative Study. Int J Cancer Manag [Internet] 2018 [cited 2025 Feb 13];11(7). Available from: https://brieflands.com/articles/ijcm-61165.html

18. Squiers L, Siddiqui M, Kataria I, Dhillon PK, Aggarwal A, Bann C, et al. Perceived, Experienced, and Internalized Cancer Stigma: Perspectives of Cancer Patients and Caregivers in India [Internet]. RTI Press; 2021 [cited 2025 Feb 13]. Available from: https://www.rti.org/rti-press-publication/perceived-experienced-and-internalized-cancer-stigma

19. Sahoo S, Sahu D, Verma M, Parija P, Panda U. Cancer and stigma: Present situation and challenges in India. Oncol J India 2019;3(3):51.

20. Datta SS, Ghose S, Ghosh M, Jain A, Mandal S, Chakraborty S, et al. Journeys: understanding access, affordability and disruptions to cancer care in India. ecancer [Internet] 2022 [cited 2025 Feb 16];16. Available from: https://ecancer.org/en/journal/article/1342-journeys-understanding-access-affordability-and-disruptions-to-cancer-care-in-india

21. Prasad M, Mahajan V. Symptomatic girls might not be brought forward for evaluation and diagnosis, leading to fewer cancer diagnoses in girls.

22. Nyblade L, Stockton M, Travasso S, Krishnan S. A qualitative exploration of cervical and breast cancer stigma in Karnataka, India. BMC Women's Health 2017;17(1):58.

23. Wright EP, Kiely MA, Lynch P, Cull A, Selby PJ. Social problems in oncology. Br J Cancer 2002;87(10):1099–104.

24. Muzzatti B, Annunziata MA. Assessing the social impact of cancer: A review of available tools. Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer 2012;20:2249–57.

25. Duijts SFA, van Egmond MP, Spelten E, van Muijen P, Anema JR, van der Beek AJ. Physical and psychosocial problems in cancer survivors beyond return to work: a systematic review. Psycho-Oncology 2014;23(5):481–92.

26. Yabroff KR, Dowling EC, Guy GP, Banegas MP, Davidoff A, Han X, et al. Financial Hardship Associated With Cancer in the United States: Findings From a Population-Based Sample of Adult Cancer Survivors. JCO 2016;34(3):259–67.

27. Catt S, Starkings R, Shilling V, Fallowfield L. Patient-reported outcome measures of the impact of cancer on patients' everyday lives: a systematic review. J Cancer Surviv 2017;11(2):211–32.

28. Gebbia V, Gebbia V, Borsellino, Ferrau', Verderame, Butera, et al. Cancer patient-centered home care: a new model for health care in oncology. TCRM 2011;387.

29. Veeraiah S, Kayser K, Sudhakar R. Psychosocial factors influencing distress among cancer patients in South India. Journal of Psychosocial Oncology Research and Practice [Internet] 2022;4(1). Available from:

https://journals.lww.com/jporp/fulltext/2022/03000/psychosocial_factors_influencing_distress_among.1.aspx

30. Cavallo J. How Effective Communication Can Improve Patient Care—and Reduce Physician Burnout.

31. Zacuto R. Combatting Stress and Promoting Wellness in Cancer Care.

32. Akin-Odanye EO, Husman AJ. Impact of stigma and stigma-focused interventions on screening and treatment outcomes in cancer patients. ecancer [Internet] 2021 [cited 2025 Feb 16];15. Available from: https://ecancer.org/en/journal/article/1308-impact-of-stigma-and-stigma-focused-interventions-on-screening-and-treatment-outcomes-in-cancer-patients

33. Hasan Shiri F, Mohtashami J, Manoochehri H, Nasiri M, Rohani C. Care Plan for Reducing Stigma in Cancer Disease. OJN 2020;10(11):1142–54.

34. Becze E. Stop Stigma and Discrimination in Health Care to Improve Equity and Patient Outcomes. CJON [Internet] 2024 [cited 2025 Feb 16];Available from: https://www.ons.org/cjon/28/1/stigma-clinical-oncology

35. McNally GA. Stigma in Clinical Oncology. CJON [Internet] 2024 [cited 2025 Feb 17];Available from: https://www.ons.org/cjon/28/1/stigma-clinical-oncology

36. Taukeni S. Biopsychosocial Model of Health. 2020;4:1.

37. Borrell-Carrió F, Suchman AL, Epstein RM. The Biopsychosocial Model 25 Years Later: Principles, Practice, and Scientific Inquiry. Ann Fam Med 2004;2(6):576.

38. Babalola E, Noel P, White R. The biopsychosocial approach and global mental health: Synergies and opportunities. Indian Journal of Social Psychiatry 2017;33:291.

39. Nadir M, Hamza M, Mehmood N. Assessing the extent of utilization of biopsychosocial model in doctor–patient interaction in public sector hospitals of a developing country. Indian Journal of Psychiatry [Internet] 2018;60(1). Available from: https://journals.lww.com/indianjpsychiatry/fulltext/2018/60010/assessing_the_extent_of_utilization_of.18.aspx

40. Cancer.

41. Yilmaz M, Dissiz G, Usluoğlu AK, Iriz S, Demir F, Alacacioglu A. Cancer-Related Stigma and Depression in Cancer Patients in A Middle-Income Country. Asia-Pacific Journal of Oncology Nursing 2020;7(1):95–102.

42. Tripathi L, Datta S, Kumar Agrawal S, Chatterjee S, Ahmed R. Stigma Perceived by Women Following Surgery for Breast Cancer. Indian Journal of Medical and Paediatric Oncology 2017;38:146–52.

43. Zhang Y, Cui C, Wang Y, Wang L. Effects of stigma, hope and social support on quality of life among Chinese patients diagnosed with oral cancer: a cross-sectional study. Health Qual Life Outcomes 2020;18(1):112.

44. Mandizadza E, Moyo S. A phenomenological study on experiences of cancer stigma amongst selected people living with cancer in rural and urban Zimbabwe. AAS Open Res 2021;4:48.

45. Takeuchi T, Ichikura K, Amano K, Takeshita W, Hisamura K. The degree of social difficulties experienced by cancer patients and their spouses. BMC Palliat Care 2018;17(1):83.

46. Boatemaa Benson R, Cobbold B, Opoku Boamah E, Akuoko CP, Boateng D. Challenges, Coping Strategies, and Social Support among Breast Cancer Patients in Ghana. Advances in Public Health 2020;2020:1–11.

47. Mosleh SM, Alja'afreh M, Alnajar MK, Subih M. The prevalence and predictors of emotional distress and social difficulties among surviving cancer patients in Jordan. European Journal of Oncology Nursing 2018;33:35–40.

48. Hasan Shiri F, Mohtashami J, Nasiri M, Manoochehri H, Rohani C. Stigma and Related Factors in Iranian People with Cancer. Asian Pac J Cancer Prev [Internet] 2018 [cited 2025 Feb 13];19(8). Available from: https://doi.org/10.22034/APJCP.2018.19.8.2285

49. Jin R, Xie T, Zhang L, Gong N, Zhang J. Stigma and its influencing factors among breast cancer survivors in China: A cross-sectional study. European Journal of Oncology Nursing 2021;52:101972.

50. Cui C, Wang L, Wang X. Profiles of social constraints and associated factors among breast cancer patients: a latent profile analysis. BMC Psychiatry 2022;22(1):750.

51. Cho J, Choi E kyung, Kim SY, Shin DW, Cho BL, Kim C hoon, et al. Association between cancer stigma and depression among cancer survivors: a nationwide survey in Korea. Psycho-Oncology 2013;22(10):2372–8.

52. Rosman S. Cancer and stigma: experience of patients with chemotherapy-induced alopecia. Patient Education and Counseling 2004;52(3):333–9.

53. Liu H, Yang Q, Narsavage GL, Yang C, Chen Y, Xu G, et al. Coping with stigma: the experiences of Chinese patients living with lung cancer. SpringerPlus 2016;5(1):1790.

54. Polański J, Misiąg W, Chabowski M. Impact of Loneliness on Functioning in Lung Cancer Patients. IJERPH 2022;19(23):15793.

55. Chapple A, Ziebland S, McPherson A, Summerton N. Lung cancer patients' perceptions of access to financial benefits: a qualitative study.

56. Peng HL, Chen YH, Lee HY, Tsai WY, Chang YL, Lai YH, et al. Factors associated with shame and stigma among head and neck cancer patients: a cross-sectional study. Supportive Care in Cancer 2024;32(6):357.

57. Fujisawa D, Umezawa S, Fujimori M, Miyashita M. Prevalence and associated factors of perceived cancer-related stigma in Japanese cancer survivors. Japanese Journal of Clinical Oncology 2020;50(11):1325–9.

58. Zhang Y, Zhao J, Jiang N, Liu Y, Wang T, Yu X, et al. The association between comorbidities and stigma among breast cancer survivors. Sci Rep 2022;12(1):13682.

59. C.R. Kothari-Research Methodology_ Methods and Techniques-New Age Publications (Academic) (2009).pdf - Google Drive [Internet]. [cited 2025 Feb 17];Available from: https://drive.google.com/file/d/1XBslFv864x-k2kG-gGxlc35IlDL8_3Z1/view

60. Kalia R, Pareek B. Textbook of nursing research and biostatistics: for undergraduate and postgraduate nursing students. Punjab: Vision Health Sciences Publishers; 2021.

61. Sood P, Bindra S. Modified Kuppuswamy socioeconomic scale: 2022 update of India. Int J Community Med Public Health 2022;9(10):3841.

62. Sharma SK. Nursing Research and Statistics. Elsevier India; 2018.

63. Yilmaz M, Dişsiz G, Demir F, Irız S, Alacacioglu A. Reliability and validity study of a tool to measure cancer stigma: Patient version. Asia-Pacific Journal of Oncology Nursing 2017;4(2):155–61.

64. Wright P, Smith AB, Keding A, Velikova G. The Social Difficulties Inventory (SDI): development of subscales and scoring guidance for staff. Psycho-Oncology 2011;20(1):36–43.

65. Wright P, Smith A, Roberts K, Selby P, Velikova G. Screening for social difficulties in cancer patients: clinical utility of the Social Difficulties Inventory. Br J Cancer 2007;97(8):1063–70.

66. Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. Acta Psychiatrica Scandinavica 1983;67(6):361–70.

67. Sanyal J, Das S, Ghosh E, Banerjee TK, Bhaskar LVKS, Rao VR. Burden among Parkinson's disease care givers for a community based study from India. J Neurol Sci 2015;358(1–2):276–81.

68. Bjelland I, Dahl AA, Haug TT, Neckelmann D. The validity of the Hospital Anxiety and Depression Scale: An updated literature review. Journal of Psychosomatic Research 2002;52(2):69–77.

69. Gray NM, Hall SJ, Browne S, Johnston M, Lee AJ, Macleod U, et al. Predictors of anxiety and depression in people with colorectal cancer. Support Care Cancer 2014;22(2):307–14.

70. Nath A, Sathishkumar K, Das P, Sudarshan KL, Mathur P. A clinicoepidemiological profile of lung cancers in India – Results from the National Cancer Registry Programme. Indian Journal of Medical Research [Internet] 2022;155(2). Available from:

https://journals.lww.com/ijmr/fulltext/2022/02000/a_clinicoepidemiological_profile_of_lung_cancers.7.aspx

71. Song M, Giovannucci E. Preventable Incidence and Mortality of Carcinoma Associated With Lifestyle Factors Among White Adults in the United States. JAMA Oncology 2016;2(9):1154–61.

72. Tripathi L, Datta SS, Agrawal SK, Chatterjee S, Ahmed R. Stigma Perceived by Women Following Surgery for Breast Cancer. Indian J Med Paediatr Oncol 2017;38(2):146–52.

73. Davis JL, Buchanan KL, Katz RV, Green BL. Gender Differences in Cancer Screening Beliefs, Behaviors, and Willingness to Participate: Implications for Health Promotion. American Journal of Men's Health 2012;6(3):211–7.

74. Tu H, Zhang L, Xu M, Zhao Z, Han J, Yan L. The mediating effect of self-efficacy on social support and cancer screening behavior among Chinese women: a cross-sectional study. BMC Women's Health 2024;24(1):1–8.

75. Zhang M, Wei W, Li Q, Chen X, Zhang M, Zuo D, et al. Determinants of Intention to Participate in Breast Cancer Screening among Urban Chinese Women: An Application of the Protection Motivation Theory. Int J Environ Res Public Health 2021;18(21):11093.

76. Squiers LB, Holden DJ, Dolina SE, Kim AE, Bann CM, Renaud JM. The Public's Response to the U.S. Preventive Services Task Force's 2009 Recommendations on Mammography Screening. American Journal of Preventive Medicine 2011;40(5):497–504.

77. de Almeida RJ, de Moraes Luizaga CT, Eluf-Neto J, de Carvalho Nunes HR, Pessoa EC, Murta-Nascimento C. Impact of educational level and travel burden on breast cancer stage at diagnosis in the state of Sao Paulo, Brazil. Sci Rep 2022;12:8357.

78. Mathew A, George PS, Kunnambath R, Mathew BS, Kumar A, Syampramod R, et al. Educational Status, Cancer Stage, and Survival in South India: A Population-Based Study. JCO Glob Oncol 2020;6:GO.20.00259.

79. Zhang N, Yang F, Di W, Wang S, Wu Z. Predictors of return to work among postoperative patients with colorectal cancer. Clin Rehabil 2024;38(11):1559–68.

80. Tamminga SJ, Jansen LP, Frings-Dresen MHW, de Boer AGEM. Long-term employment status and quality of life after cancer: A longitudinal prospective cohort study from diagnosis up to and including 5 years post diagnosis. Work 66(4):901–7.

81. Andreu Y, Picazo C, Murgui S, Soto-Rubio A, García-Conde A, Romero R. Exploring the independent association of employment status to cancer survivors' health-related quality of life. Health Qual Life Outcomes 2023;21:44.

82. Khanna D, Sharma P, Budukh A, Vishwakarma R, Sharma AN, Bagal S, et al. Rural-urban disparity in cancer burden and care: findings from an Indian cancer registry. BMC Cancer 2024;24(1):308.

83. Zhang Y, Bu Y, Gao H. Rural–urban disparities of breast cancer patients in China. Medical Oncology 2012;30(1):387.

84. Bhatia S, Landier W, Paskett ED, Peters KB, Merrill JK, Phillips J, et al. Rural–Urban Disparities in Cancer Outcomes: Opportunities for Future Research. J Natl Cancer Inst 2022;114(7):940–52.

85. Aizer AA, Chen MH, McCarthy EP, Mendu ML, Koo S, Wilhite TJ, et al. Marital status and survival in patients with cancer. J Clin Oncol 2013;31(31):3869–76.

86. Krajc K, Miroševič Š, Sajovic J, Klemenc Ketiš Z, Spiegel D, Drevenšek G, et al. Marital status and survival in cancer patients: A systematic review and meta-analysis. Cancer Medicine 2023;12(2):1685–708.

87. Dionne-Odom JN, Kent EE, Rocque GB, Azuero A, Harrell ER, Gazaway S, et al. Family caregiver roles and challenges in assisting patients with cancer treatment decision-making: Analysis of data from a national survey. Health Expect 2023;26(5):1965–76.

88. Brajković L, Milat-Panža K, Kopilaš V. Subjective Well-Being in Cancer Patients: The Roles of Social Support, Purpose in Life, Resilience, and Informativeness. Healthcare (Basel) 2023;11(24):3181.

89. Knaul FM, Bhadelia A, Gralow J, Arreola-Ornelas H, Langer A, Frenk J. Meeting the emerging challenge of breast and cervical cancer in low- and middle-income countries. Intl J Gynecology & Obste [Internet] 2012 [cited 2025 Feb 13];119(S1). Available from: https://obgyn.onlinelibrary.wiley.com/doi/10.1016/j.ijgo.2012.03.024

90. Kitaw TA, Tilahun BD, Zemariam AB, Getie A, Bizuayehu MA, Haile RN. The financial toxicity of cancer: unveiling global burden and risk factors – a systematic review and meta-analysis. BMJ Glob Health 2025;10(2):e017133.

91. Kang NE, Kim HY, Kim JY, Kim SR. Relationship between cancer stigma, social support, coping strategies and psychosocial adjustment among breast cancer survivors. Journal of Clinical Nursing 2020;29(21–22):4368–78.

92. He Q, Wu S, Zhou Y, Liu Y, Xia B, Li W, et al. Genetic factors, adherence to healthy lifestyle behaviors, and risk of bladder cancer. BMC Cancer 2023;23(1):1–11.

93. Sandhu APS, Tanvir, Singh K, Singh S, Antaal H, Luthra S, et al. Decoding Cancer Risk: Understanding Gene-Environment Interactions in Cancer Development. Cureus 16(7):e64936.

94. Yu EYW, Liu YX, Chen YT, Tang QY, Mehrkanoon S, Wang SZ, et al. The effects of the interaction of genetic predisposition with lifestyle factors on bladder cancer risk. BJU International 2023;131(4):443–51.

95. Zhang Y, Lindström S, Kraft P, Liu Y. Genetic risk, health-associated lifestyle, and risk of early-onset total cancer and breast cancer. JNCI: Journal of the National Cancer Institute 2025;117(1):40–8.

96. Smith CDL, McMahon AD, Purkayastha M, Creaney G, Clements K, Inman GJ, et al. Head and neck cancer incidence is rising but the sociodemographic profile is unchanging: a population epidemiological study (2001–2020). BJC Rep 2024;2(1):1–7.

97. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin 2018;68(6):394–424.

98. Patel P, Patel AV, Patel NR, Parikh F, Medtiya H, Mehta R, et al. A Study of Oral Mucosal Lesions.

99. Mee T, Kirkby NF, Defourny NN, Kirkby KJ, Burnet NG. The use of radiotherapy, surgery and chemotherapy in the curative treatment of cancer: results from the FORTY

(Favourable Outcomes from RadioTherapY) project. The British Journal of Radiology 2023;96(1152):20230334.

100. Zamanian H, Amini-Tehrani M, Jalali Z, Daryaafzoon M, Ramezani F, Malek N, et al. Stigma and Quality of Life in Women With Breast Cancer: Mediation and Moderation Model of Social Support, Sense of Coherence, and Coping Strategies. Front Psychol 2022;13:657992.

101. Wu J, Zeng N, Wang L, Yao L. The stigma in patients with breast cancer: A concept analysis. Asia-Pacific Journal of Oncology Nursing 2023;10(10):100293.

102. Vrinten C, Gallagher A, Waller J, Marlow LAV. Cancer stigma and cancer screening attendance: a population based survey in England. BMC Cancer 2019;19(1):1–10.

103. Knaul F, Rodriguez N, Arreola-Ornelas H, Olson J. Cervical cancer: lessons learned from neglected tropical diseases. The Lancet Global Health 2019;7.

104. Jeudine RM. Improving Cervical Cancer Screening Adherence Among a Minority Group of Haitian Women Living in South Florida: An Education and Quality Improvement Program.

105. Suwankhong D, Liamputtong P. Breast Cancer Treatment: Experiences of Changes and Social Stigma Among Thai Women in Southern Thailand. Cancer Nursing [Internet] 2016;39(3). Available from: https://journals.lww.com/cancernursingonline/fulltext/2016/05000/breast_cancer_treatment__experiences_of_changes.8.aspx

106. Jr B, Sl S, M J, P B, P F. Sources of support and the physical and mental well-being of young women with breast cancer. Social science & medicine (1982) [Internet] 2001 [cited 2025 Feb 20];53(11). Available from: https://pubmed.ncbi.nlm.nih.gov/11710426/

107. Neuling SJ, Winefield HR. Social support and recovery after surgery for breast cancer: Frequency and correlates of supportive behaviours by family, friends and surgeon. Social Science & Medicine 1988;27(4):385–92.

108. Hasan Shiri F, Mohtashami J, Manoochehri H, Rohani C. Cancer Stigma and its Consequences and Influencing Factors in Iranian Society: A Qualitative Study. J Qual Res Health Sci 2022;11(3):180–8.

109. Haj Hashemi F, Atashzadeh-Shoorideh F, Oujian P, Mofid B, Bazargan M. Relationship between perceived social support and psychological hardiness with family communication patterns and quality of life of oncology patients. Nursing Open 2021;8(4):1704–11.

110. Bu X, Li S, Cheng ASK, Ng PHF, Xu X, Xia Y, et al. Breast Cancer Stigma Scale: A Reliable and Valid Stigma Measure for Patients With Breast Cancer. Front Psychol 2022;13:841280.

111. Vizin G, Szekeres T, Juhász A, Márton L, Dank M, Perczel-Forintos D, et al. The role of stigma and depression in the reduced adherence among young breast cancer patients in Hungary. BMC Psychol 2023;11(1):319.

112. Wright P, Smith A, Booth L, Winterbottom A, Kiely M, Velikova G, et al. Psychosocial difficulties, deprivation and cancer: three questionnaire studies involving 609 cancer patients. British Journal of Cancer 2005;93(6):622.

113. Chen WL, Chen YY, Wu WT, Ho CL, Wang CC. Life expectancy estimations and determinants of return to work among cancer survivors over a 7-year period. Scientific Reports 2021;11(1):12858.

114. Gonzalo MB, House L, Santiago K, Buzaglo JS, Zaleta AK, Gupta NK. Access to care in cancer: Barriers and challenges. Journal of Clinical Oncology [Internet] 2017 [cited 2025 Feb 21];Available from: https://ascopubs.org/doi/10.1200/JCO.2017.35.8_suppl.33

115. Egilsdóttir H, Jónsdóttir H, Klinke ME. Living in Rural Areas and Receiving Cancer Treatment Away From Home: A Qualitative Study Foregrounding Temporality. Glob Qual Nurs Res 2022;9:23333936221111802.

116. Charlton M, Schlichting J, Chioreso C, Ward M, Vikas P. Challenges of Rural Cancer Care in the United States. Oncology (Williston Park, NY) 2015;29.

117. Pringle S, Ko EM, Doherty M, Smith AJB. Addressing transportation barriers in oncology: existing programs and new solutions. Supportive Care in Cancer 2024;32(5):317.

118. Aa M, Ro A, L PR, A A, Jj B, Nf S, et al. Psychological Factors Related to Treatment Outcomes in Head and Neck Cancer. Advances in therapy [Internet] 2024 [cited 2025 Feb 21];41(9). Available from: https://pubmed.ncbi.nlm.nih.gov/39110309/

119. Hagedoorn M, Molleman E. Facial disfigurement in patients with head and neck cancer: The role of social self-efficacy. Health Psychology 2006;25(5):643–7.

120. Lebel S, Castonguay M, Mackness G, Irish J, Bezjak A, Devins GM. The psychosocial impact of stigma in people with head and neck or lung cancer. Psycho-Oncology 2013;22(1):140–52.

121. Zhang A, Hu R, Wang K, Antalis EP. Age moderates the association between psychological distress and engagement in mindfulness among cancer patients and survivors: A population-based study. Journal of Psychosocial Oncology 2020;38(5):513–26.

122. Z H, T Y, S W, A H. Correlates of stigma for patients with cancer: a systematic review and meta-analysis. Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer [Internet] 2021 [cited 2025 Feb 21];29(3). Available from: https://pubmed.ncbi.nlm.nih.gov/32951087/

123. Yigitbas C, Bulut A. Exploring psychological help-seeking behaviors and stigma perception among cancer patients: a study on their impact on psychosocial adjustment. Support Care Cancer 2024;32(10):1–9.

124. Oberoi S, Yang J, Woodgate RL, Niraula S, Banerji S, Israels SJ, et al. Association of Mindfulness-Based Interventions With Anxiety Severity in Adults With Cancer: A Systematic Review and Meta-analysis. JAMA Network Open 2020;3(8):e2012598.

125. Gass J, Mitchell S, Hanna M. How do breast cancer surgery scars impact survivorship? Findings from a nationwide survey in the United States. BMC Cancer 2019;19:342.

126. Zhu M, Zhang Y, He H, Chen L, Chen J, Zhang M. Social participation and acceptance of disability in young and middle-aged breast cancer patients after surgery: A 6-month follow-up study. Asia-Pacific Journal of Oncology Nursing 2023;10(8):100266.

127. Teruya N, Sunagawa Y, Toyosato T, Yokota T. Association between Daily Life Difficulties and Acceptance of Disability in Cancer Survivors after Total Laryngectomy: a Cross-Sectional Survey. Asia-Pacific Journal of Oncology Nursing 2019;6(2):170.

128. Eyu HT, Nik Jaafar NR, Leong Abdullah MFI, Salleh Salimi HM, Mohamad Yunus MR, Ismail F, et al. Perceived Shame and Stigma, and Other Psychosocial Predictors of Psychological Distress Among Cancer Patients in Malaysia. Psycho-Oncology 2024;33(12):e70020.

129. Liamputtong P, Rice ZS. Stigma, Discrimination, and Social Exclusion [Internet]. In: Handbook of Social Inclusion. Springer, Cham; 2021 [cited 2025 Feb 20]. page 1–17.Available from: https://link.springer.com/referenceworkentry/10.1007/978-3-030-48277-0_6-2

130. Spreading awareness about cancer | Indian Cancer Society [Internet]. [cited 2025 Feb 21];Available from: https://www.indiancancersociety.org/?utm_source=chatgpt.com

131. Coping with cancer disease: Family support and self-determination plays a crucial role - Times of India [Internet]. The Times of India [cited 2025 Feb 21];Available from: https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/coping-with-cancer-disease-family-support-and-self-determination-plays-a-crucial-role/articleshow_new/110473981.cms

132. understanding Patient Assistance Programs for Cancer Treatment in India [Internet]. [cited 2025 Feb 21];Available from: https://www.mrmed.in/

133. Rehabilitation | Vocational training in tailoring - Indian Cancer Society [Internet]. [cited 2025 Feb 21];Available from: https://www.indiancancersociety.org/what-do-we-do/rehabilitation?utm_source=chatgpt.com

134. Multidisciplinary Cancer Care: What Is It & Why It Matters? | Parkway Cancer Centre India [Internet]. Parkway Cancer [cited 2025 Feb 21];Available from: https://www.parkwaycancercentre.com/in/news-events/news-articles/news-articles-details/multidisciplinary-cancer-care-what-is-it-why-it-matters?utm_source=chatgpt.com

135. Patel A, Bhatnagar S, Ratre B. Patient centric integrative supportive care model at a tertiary cancer care center of India. Indian J Med Sci 2021;73(2):275–80.

136. Gupta M, Kankaria A, Sahoo SS, Bhatnagar S, Kakkar R, Grewal A, et al. Comprehensive coordinated community based palliative care (C3PaC) model for cancer patients in North India: a mixed-method implementation research study protocol. BMC Palliat Care 2023;22(1):1–9.

ANNEXURES

ANNEXURE 1

SCREENING TOOL

SCREENING TOOL

1. DATE of ASSESSMENT ……
2. AGE (in years) ……
3. Gender ……
4. Diagnosis ……
5. Are you able to understand Hindi or English? [Yes/No]

   ……
6. What is the duration between first detection of the cancer related symptoms and first medical interaction?

   ……
7. Is the patient diagnosed with any psychological problem or cognitive impairment and unable to give response to the questions? (Yes/No)

   ……..
8. Are you willing to participate in the study?

   …….

SELECTED FOR THE STUDY - [ ] YES [ ] NO

1. PATIENT NAME …….
2. CODE NO. ……
3. PLACE OF SCREENING …….
4. CONTACT NUMBER ……...
5. ADDRESS ……

ANNEXURE 2

DATA COLLECTION TOOL (ENGLISH)

Description of the Tool

Using pertinent literature, a self-structured tool was developed for measuring demographic and clinical variables and structured tool for measuring Stigma, Social difficulties, Anxiety and Depression which is consisting of four sections: **Section A** covers socio-demographic variables and clinical variables of Cancer patients, **Section B** addresses Stigma among Cancer patients, and **Section C** focuses on Social difficulties faced by Cancer patients, **Section D** comprises Anxiety and Depression among Cancer patients.

Section-A: To assess the sociodemographic and clinical variables of Cancer patients.

Section-B: To assess the Stigma among Cancer patients.

Section-C: To assess the Social Difficulties faced by Cancer patients.

Section-D: To assess the Anxiety and Depression among Cancer patients.

Code No. ____

Instructions:

- It is a self-answer questionnaire, and all the questions are to be answered by the Cancer patients.
- It is compulsory to answer all the questions given below.
- All the data collected will be used for the research purpose only.
- The confidentiality of all the information will be ensured by disclosing the collected data to the investigator, guide and the co-guides only.

SECTION A: Questionnaire to assess Socio demographic and Clinical data

1. AGE (In Years) ……	1) 18-28 2) 29-39 3) 40-50 4) 51-61 5) >61
2. Gender …….	1) Male 2) Female 3) Other
3. RELIGION _____	1) Hindu 2) Muslim 3) Christian 4) Other
4. LEVEL OF EDUCATION	1) Unable to read and write 2) Primary education and less 3) Secondary education 4) Higher secondary education 5) College and above
5. OCCUPATIONAL STATUS	1) Housewife 2) Government employee 3) Private employee 4) Have own business/Self employed 5) Unemployed

6. SOCIO ECONOMIC CLASS (Modified Kuppuswamy socioeconomic scale 2023)	
i). EDUCATIONAL 7) Professional degree 6) Graduate 5) Intermediate/ diploma 4) High school 3) Middle school 2) Primary School 1) Illiterate	1) Upper (26-29) 2) Upper middle (16-25) 3) Lower middle (11-15) 4) Upper lower (5-10) 5) Lower (<5)
ii). OCCUPATION 10) Legislators, senior officials, managers. 9) Professionals 8) Technicians/ associate professionals 7) Clerks 6) Skilled worker, shop and market sales workers 5) Skilled agricultural and fishery workers 4) Craft and related trade workers	

3) Plant and machine operators and assemblers 2) Elementary occupation 1) Unemployed **iii). FAMILY INCOME IN RUPEES** 12) >146,104 11) 109,580-146,103 10) 73,054-109,579 9) 68,455-73,053 8) 63,854-68,454 7) 59,252-63,853 6) 54,651-59,251 5) 45,589-54,650 4) 36,527-45,588 3) 21,914-36,526 2) 7316-21,913 1) <=7,315	
7. COMMUNITY	1) Rural 2) Urban
8. Marital status	1) Single 2) Married 3) Divorced 4) Widowed 5) Widower

9. TYPE OF FAMILY	1) Nuclear 2) Extended 3) Single Parent Family 4) Step Family 5) Grandparent Family 6) Other…….
10. FAMILY SUPPORT AVAILABLE	1) Mother-in-law/Father-in-law 2) Mother/Father 3) Son/Daughter in law 4) Husband/Wife 5) Brother/Sister 6) Daughter/Son in law 7) Others

CLINICAL DATA VARIABLES

VARIABLES	CATEGORY
1) Do you have Family history of cancer?	1) Yes If yes, what is the relation?..... 2) No
2) What is the cancer are you suffering from?	Type of cancer …….

3) What is the period of your illness?	Period of illness …… 1) 1-6 2) 7-12 3) 13-18 4) 19-24 5) >24
4) What is the stage of cancer?	Stage of cancer ……. 1) 1 stage 2) 2 stage 3) 3 stage 4) 4 stage
5) Do you have any Comorbid disease?	1) Yes a. HTN, if yes, duration…… b. Diabetes, if yes, duration…… c. Thyroid, if yes, duration…… d. Asthma, if yes, duration…… e. Others (specify)…… 2) No comorbid illness
6) What type of treatment is going on?	Type of treatment 1) Chemotherapy 2) Radiotherapy 3) Both chemotherapy and radiotherapy 4) Other (specify)……
7) Have you had any surgery?	1) Yes 2) No

SECTION – B: QUESTIONNAIRE TO ASSESS STIGMA AMONG CANCER PATIENTS

TOOL TO MEASURE CANCER STIGMA: PATIENT VERSION

- It consists of total 3 Domains and 12 Items.
- It comprises of various Domains which include:
- Impossibility of recovery/ Perceptions of cancer and death: It contains 4 items
- Stereotypes of cancer patients: It contains 4 items
- Experience of social discrimination: It contains 4 items

Participants' responses will be assessed by using a four-point Likert scale with a range from 1 to 4, where 1 represents "Strongly Disagree", 2 represents "Disagree", 3 represents "Agree", 4 represents "Strongly agree", i.e.,

a) 1: Strongly Disagree
b) 2: Disagree
c) 3: Agree
d) 4: Strongly Agree

Please indicate your level of agreement by placing a tick mark (✓) on your response.

Domains	**Items**	**Strongly disagree (1)**	**Disagree (2)**	**Agree (3)**	**Strongly agree (4)**
Impossibility of Recovery/Perceptio	Cancer is impossible to treat regardless of				

ns of cancer and health	highly developed medical science				
	I would not be socially active once diagnosed with cancer				
	Job performance at the workplace may decrease even after successful cancer treatment				
	It is very difficult to be healthy again once a person is diagnosed with cancer				
Stereotypes of cancer patients	Cancer patients are easily recognized by their look				
	Cancer patients would have a difficult time having sexual intimacy				

	Cancer patients deserve to be protected in society				
	Cancer patients would not be able to make contributions to society				
Experience of social discrimination	Some friends avoid me because of cancer				
	Some neighbors tend to avoid interacting with me because of cancer				
	I have problems with my family/married life because of cancer				
	My employer/co-workers have discriminated against me				

SECTION -C: QUESTIONNAIRE TO ASSESS SOCIAL DIFFICULTIES AMONG CANCER PATIENTS

SOCIAL DIFFICULTIES INVENTORY (SDI-21)

- There are 21 questions.
- Please read each question carefully and tick the response that best describes your answer
- Please answer each question as honestly as possible.
- If you are not completely sure which response is the most accurate tick the box that you feel is the most appropriate.
- Please tick the 'no difficulty box' if a question does not apply to you
- Do not spend long on each statement.

During the past month					
		No difficulty (0)	**A little (1)**	**Quite a bit (2)**	**Very much (3)**
Subscale 1: Everyday living					
1	Have you had any difficulty maintaining your independence?				
2	Have you had any difficulty in carrying out your domestic chores? (e.g. cleaning, gardening, cooking, shopping)				
3	Have you had any difficulty with managing your own personal care? (e.g. bathing, dressing washing)				

4	Have you had any difficulty with looking after those who depend on you? (e.g. children, dependent adults, pets)				
5	Have you had any difficulty with getting around? (e.g. transport, car parking, your mobility)				
6	Have you had any difficulty in carrying out your recreational activities (e.g. hobbies, pastimes, social pursuits)				
Subscale 2: Money matters					
7	Have you had any difficulties with benefits? (e.g. Statutory Sick Pay, Personal Independence Payments, Attendance Allowance, Universal Credit)				
8	Have you had any financial difficulties?				
9	Have you had any difficulties with financial services? (e.g. loans, mortgages, pensions, insurance)				
10	Have you had any difficulty concerning your work? (or education if you are a student)				
11	Have you had any difficulty with planning for your own or your family's future? (e.g. care of dependents, legal issues, business affairs)				
Subscale 3: Self and others					

12	Have any of those close to you (e.g. partner, children, parents) had any difficulty with the support available to them?				
13	Have you had any difficulty with communicating with those closest to you? (e.g. partner, children, parents)				
14	Have you had any difficulty with communicating with others? (e.g. friends, neighbours, colleagues, dates)				
15	Have you had any difficulty concerning your appearance or body image?				
16	Have you felt isolated?				
Single items:					
17	Have you had any difficulty concerning sexual matters?				
18	Have you had any difficulty concerning plans to have a family?				
19	Have you had any difficulty with where you live? (e.g. space, access, damp, heating, neighbours, security)				
20	Have you had any difficulty with your plans to travel or take a holiday?				
21	Have you had any difficulty with any other area of your everyday life?				

SECTION -D: QUESTIONNAIRE TO ASSESS ANXIETY/DEPRESSION AMONG CANCER PATIENTS

HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS)

- It consists of total 14 items, from which 7 items belong to anxiety level and 7 items belong to depression level.
- Tick the box beside the reply that is closest to how you have been feeling in the past week.
- Don't take too long over you replies: your immediate is best.

PART 1 – ANXIETY SCALE

1) **I feel tense or 'wound up':**

   3) Most of the time

   2) A lot of the time

   1) From time to time, occasionally

   0) Not at all

2) **I get a sort of frightened feeling as if something awful is about to happen:**

   3) Very definitely and quite badly

   2) Yes, but not too badly

   1) A little, but it doesn't worry me

   0) Not at all

3) **Worrying thoughts go through my mind:**

   3) A great deal of the time

   2) A lot of the time

   1) From time to time, but not too often

0) Only occasionally

4) I can sit at ease and feel relaxed:

0) Definitely

1) Usually

2) Not Often

3) Not at all

5) I get a sort of frightened feeling like 'butterflies' in the stomach:

0) Not at all

1) Occasionally

2) Quite Often

3) Very Often

6) I feel restless as I have to be on the move:

3) Very much indeed

2) Quite a lot

1) Not very much

0) Not at all

7) I get sudden feelings of panic:

3) Very often indeed

2) Quite often

1) Not very often

0) Not at all

PART 2 – DEPRESSION SCALE

1) I still enjoy the things I used to enjoy:

0) Definitely as much

1) Not quite so much

2) Only a little

3) Hardly at all

2) I can laugh and see the funny side of things:

0) As much as I always could

1) Not quite so much now

2) Definitely not so much now

3) Not at all

3) I feel cheerful:

3) Not at all

2) Not often

1) Sometimes

0) Most of the time

4) I feel as if I am slowed down:

3) Nearly all the time

2) Very often

1) Sometimes

0) Not at all

5) I have lost interest in my appearance:

3) Definitely

2) I don't take as much care as I should

1) I may not take quite as much care

0) I take just as much care as ever

6) I look forward with enjoyment to things:

0) As much as I ever did

1) Rather less than I used to

2) Definitely less than I used to

3) Hardly at all

7) I can enjoy a good book or radio or TV program:

0) Often

1) Sometimes

2) Not often

3) Very seldom

ANNEXURE 3

DATA COLLECTION TOOL (HINDI)

डेटा संग्रह के लिए उपकरण-

उपकरण का विवरण

प्रासंगिक साहित्य का उपयोग करते हुए, जनसांख्यिकीय और नैदानिक चर को मापने के लिए एक स्व-संरचित उपकरण विकसित किया गया है और प्रतिकूल धारणाओं, सामाजिक कठिनाइयों, चिंता और अवसाद को मापने के लिए संरचित उपकरण का उपयोग किया गया है, जिसमें चार खंड शामिल हैं: **खंड ए** कैंसर रोगियों के सामाजिक-जनसांख्यिकीय और नैदानिक चर शामिल हैं, **खंड बी** कैंसर रोगियों के बीच कलंक को संबोधित करता है, और **खंड सी** कैंसर रोगियों द्वारा सामना की जाने वाली सामाजिक कठिनाइयों पर केंद्रित है, **खंड डी** में कैंसर रोगियों के बीच चिंता और अवसाद शामिल है।

खंड-ए: कैंसर रोगियों के समाजशास्त्रीय और नैदानिक मापदंड का आकलन करने के लिए।

खंड- बी: कैंसर रोगियों के बीच प्रतिकूल धारणाओं का आकलन करना।

खंड- सी: कैंसर रोगियों द्वारा सामना की जाने वाली सामाजिक कठिनाइयों का आकलन करना।

खंड- डी: कैंसर रोगियों के बीच चिंता और अवसाद का आकलन करने के लिए।

कोड नं. :

निर्देश:

- यह एक स्व-उत्तर प्रश्नावली है, और सभी सवालों के जवाब कैंसर रोगियों द्वारा दिए जाने हैं।
- नीचे दिए गए सभी प्रश्नों के उत्तर देना अनिवार्य है।
- एकत्र किए गए सभी डेटा का उपयोग केवल अनुसंधान उद्देश्य के लिए किया जाएगा।
- एकत्रित आंकड़ों को अन्वेषक, मार्गदर्शक और सह-मार्गदर्शकों को ही प्रकट करके सभी सूचनाओं की गोपनीयता सुनिश्चित की जाएगी।

खंड ए: सामाजिक जनसांख्यिकीय और नैदानिक डेटा का आकलन करने के लिए प्रश्नावली

1. आयु (वर्षों में) ……	1) 18-28 2) 29-39 3) 40-50 4) 51-61 5) >61
2. लिंग	1) पुरुष 2) महिला 3) अन्य
3. धर्म	1) हिंदू 2) मुस्लिम 3) ईसाई
4. शिक्षा का स्तर	1) पढ़ने-लिखने में असमर्थ 2) प्राथमिक शिक्षा और कम 3) माध्यमिक शिक्षा 4) उच्च माध्यमिक शिक्षा 5) कॉलेज और उससे ऊपर
5. व्यावसायिक स्थिति	1) गृहस्वामिनी 2) सरकारी कर्मचारी 3) निजी कर्मचारी 4) खुद का व्यवसाय / स्वरोजगार है

	5) बेरोज़गार
6. सामाजिक आर्थिक वर्ग (संशोधित कुप्पुस्वामी सामाजिक आर्थिक पैमाने 2023) **i) शैक्षिक** a) व्यावसायिक डिग्री b) स्नातक c) इंटरमीडिएट/ डिप्लोमा d) हाई स्कूल e) मिडिल स्कूल f) प्राथमिक विद्यालय g) अनपढ़ **(ii) व्यवसाय** a) विधायक, वरिष्ठ अधिकारी, प्रबंधक। b) पेशेवर c) तकनीशियन / सह-व्यावसायिक d) क्लर्क	1) उच्च (26-29) 2) उच्च मध्यम (16-25) 3) निम्न मध्यम (11-15) 4) उच्च निम्न (5-10) 5) निम्न (<5)

e) कुशल श्रमिक, दुकान और बाजार बिक्री कार्यकर्ता f) कुशल कृषि और मत्स्य पालन श्रमिक g) शिल्प और संबंधित व्यापार श्रमिक h) संयंत्र और मशीन ऑपरेटर और असेंबलर्स i) प्राथमिक व्यवसाय j) बेरोजगार **iii. परिवार की आय रुपये में** a) >146,104 b) 109,580-146,103 c) 73,054-109,579 d) 68,455-73,053 e) 63,854-68,454 f) 59,252-63,853 g) 54,651-59,251 h) 45,589-54,650 i) 36,527-45,588 j) 21,914-36,526 k) 7316-21,913 l) <=7,315	

7. निवास	1) ग्रामीण 2) शहरी
8. वैवाहिक स्थिति	1) अविवाहित 2) विवाहित 3) तलाकशुदा 4) विधवा 5) विधुर
9. परिवार के प्रकार	1) छोटा परिवार 2) संयुक्त परिवार 3) एकल अभिभावक परिवार 4) सौतेला परिवार 5) दादा-दादी परिवार 6) अन्य.....
10. कोई सामाजिक सहायता उपलब्ध है (यदि हां तो नीचे उत्तर दें)	1) सास/ससुर 2) माता/पिता 3) बेटा/ बहू 4) पति/पत्नी 5) बेटी/दामाद 6) कोई अन्य (निर्दिष्ट करें).....

<u>नैदानिक डेटा के मापदंड:</u>

मपदंड	वर्ग
1. क्या आपके परिवार में किसी को कैंसर है या था?	1) हाँ यदि हां, तो क्या संबंध है? ..... 2) नहीं
2. आप किस प्रकार के कैंसर से पीड़ित हैं?	o कैंसर के प्रकार .....
3. आपकी बीमारी की अवधि क्या है?	o बीमारी की अवधि ..... 1) 1-6 2) 7-12 3) 13-18 4) 19-24 5) >24
4. कैंसर की अवस्था क्या है?	o कैंसर की अवस्था ..... 1) 1 stage 2) 2 stage 3) 3 stage 4) 4 stage
5. क्या आपको कोई कोमोर्बिड रोग है, यदि हां, तो कोमोर्बिड रोग की समय अवधि क्या है?	1) हाँ a. हाइपरटेंशन (HTN), यदि हाँ, अवधि…… b. डायबिटीज (मधुमेह), यदि हाँ, अवधि……

	c. थायरॉइड, यदि हाँ, अवधि…… d. अस्थमा, यदि हाँ, अवधि…… e. अन्य (विवरण दें)…… 2) कोई कोमोर्बिड बीमारी नहीं
6. किस प्रकार का उपचार चल रहा है?	○ उपचार के प्रकार 1) कीमोथेरेपी 2) रेडियोथेरेपी 3) कीमोथेरेपी और रेडियोथेरेपी दोनों 4) दूसरा .....
7. क्या आपकी कोई सर्जरी हुई है? यदि हां, तो किस प्रकार की सर्जरी की गई थी?	1) हाँ यदि हाँ, सर्जरी के प्रकार ..... 2) नहीं

खंड - बी: कैंसर रोगियों के मध्य प्रतिकूल धारणाओं का आकलन करने के लिए प्रश्नावली

<u>कैंसर के प्रतिकूल धारणाओं को मापने के लिए उपकरण: रोगी संस्करण</u>

- इसमें कुल 3 डोमेन और 12 आइटम शामिल हैं।
- इसमें विभिन्न डोमेन शामिल हैं:
  1. कैंसर और मृत्यु की वसूली / धारणाओं की असंभवता: इसमें 4 आइटम होते हैं
  2. कैंसर रोगियों की रूढ़िवादिता: इसमें 4 आइटम होते हैं
  3. सामाजिक भेदभाव का अनुभव: इसमें 4 आइटम शामिल हैं

प्रतिभागियों की प्रतिक्रियाओं का मूल्यांकन 1 से 4 तक की सीमा के साथ चार-बिंदु लिकर्ट पैमाने का उपयोग करके किया जाएगा, जहां 1:- "दृढ़ता से असहमत" का प्रतिनिधित्व करता है, 2:- "असहमत" का प्रतिनिधित्व करता है, 3:- "सहमत" का प्रतिनिधित्व करता है, 4:- "दृढ़ता से सहमत" का प्रतिनिधित्व करता है।

कृपया अपनी प्रतिक्रिया पर टिक मार्क (✓) लगाकर अपने समझौते के स्तर को इंगित करें।

डोमेन	**आइटम**	**दृढ़ता से असहमत हैं (1)**	**असहमत (2)**	**सहमत (3)**	**दृढ़ता से सहमत (4)**
सुधार असंभब है/ कैंसर और स्वास्थय की अवधारणा	अत्यधिक विकसित चिकित्सा विज्ञान के बावजूद कैंसर का इलाज असंभव है।				
	कैंसर का पता चलने के बाद मैं सामाजिक रूप से सक्रिय नहीं रहूंगा।				
	कैंसर के सफल उपचार के बाद भी कार्यस्थल पर नौकरी का प्रदर्शन कम हो सकता है				
	एक बार जब किसी व्यक्ति को कैंसर का पता चलता है तो फिर से स्वस्थ होना बहुत मुश्किल होता है।				

कैंसर रोगियों की धारणाएँ	कैंसर के मरीज अपने लुक से आसानी से पहचान जाते हैं।				
	कैंसर रोगियों को यौन अंतरंगता रखने में मुश्किल समय होगा				
	कैंसर रोगियों को समाज में सुरक्षित किया जाना चाहिए।				
	कैंसर रोगी समाज में योगदान करने में सक्षम नहीं होंगे				
सामाजिक भेदभाव का अनुभव	कुछ दोस्त कैंसर की वजह से मुझसे बचते हैं।				
	कुछ पड़ोसी कैंसर के कारण मेरे साथ बातचीत करने से बचते हैं।				
	मुझे कैंसर के कारण अपने परिवार / विवाहित जीवन के साथ समस्याएं हैं।				
	मेरे नियोक्ता/सहकर्मियों ने मेरे साथ भेदभाव किया है।				

खंड -सी: कैंसर रोगियों के बीच सामाजिक कठिनाइयों का आकलन करने के लिए प्रश्नावली:

सामाजिक कठिनाइयाँ इन्वेंटरी (SDI-21)

- प्रत्येक कथन पर लंबा समय खर्च न करें, इसमें कुल 21 प्रश्न हैं।

- कृपया प्रत्येक प्रश्न को ध्यान से पढ़ें और उस उत्तर पर टिक करें जो आपके उत्तर का सबसे अच्छा वर्णन करता है।
- कृपया प्रत्येक प्रश्न का यथासंभव ईमानदारी से उत्तर दें।
- यदि आप पूरी तरह से सुनिश्चित नहीं हैं कि कौन सी प्रतिक्रिया सबसे सटीक है, तो उस बॉक्स को टिक करें जो आपको लगता है कि सबसे उपयुक्त है।
- यदि कोई प्रश्न आप पर लागू नहीं होता है तो कृपया 'कोई कठिनाई नहीं' बॉक्स पर टिक करें

पिछले महीने के दौरान					
		कोई कठिनाई नहीं (0)	**थोड़ी बहुत (1)**	**थोड़ा ज़्यादा (2)**	**बहुत ज़्यादा (3)**
उपस्केल 1- प्रतिदिन का जीवन					
1.	क्या आपको अपनी स्वतंत्रता बनाए रखने में कोई कठिनाई हुई है?				
2.	क्या आपको अपने घरेलू कामों को करने में कोई कठिनाई हुई है? (जैसे सफाई, बागवानी, खाना पकाने, ख़रीददारी)				
3.	क्या आपको अपनी व्यक्तिगत देखभाल के				

	प्रबंधन में कोई कठिनाई हुई है? (जैसे स्नान, कपड़े धोना)				
4.	क्या आपको उन लोगों की देखभाल करने में कोई कठिनाई हुई है जो आप पर निर्भर हैं? (जैसे बच्चे, आश्रित वयस्क, पालतू जानवर)				
5.	क्या आपको घूमने-फिरने में कोई कठिनाई हुई है? (जैसे परिवहन, कार पार्किंग, आपकी गतिशीलता)				
6.	क्या आपको अपने मनोरंजक कामों (जैसे शौक, समय व्यतीत, सामाजिक गतिविधियां) को पूरा करने में कोई कठिनाई हुई है?				
उपस्केल 2- वित्तीय मामले					
7.	क्या आपको लाभ से संबंधित कोई कठिनाई हुई है? (जैसे सांविधिक रुग्ण वेतन, व्यक्तिगत स्वतंत्रता भुगतान,				

	उपस्थिति भत्ता, सार्वभौमिक क्रेडिट)				
8.	क्या आपको कोई वित्तीय कठिनाइयों का सामना करना पड़ा है?				
9.	क्या आपको वित्तीय सेवाओं के साथ कोई कठिनाई हुई है? (जैसे ऋण, बंधक, पेंशन, बीमा)				
10.	क्या आपको अपने काम के बारे में कोई कठिनाई हुई है? (या शिक्षा यदि आप एक छात्र हैं)				
11.	क्या आपको अपने या अपने परिवार के भविष्य की योजना बनाने में कोई कठिनाई हुई है? (जैसे आश्रितों की देखभाल, कानूनी मुद्दे, व्यावसायिक मामले)				
उपस्केल 3: स्व और दूसरों					

12.	क्या आपके करीबी लोगों (जैसे साथी, बच्चों, माता-पिता) में से किसी को भी उपलब्ध सहायता के साथ कोई कठिनाई हुई है?				
13.	क्या आपको अपने सबसे करीबी लोगों से बात करने में कोई दिक्कत हुई है? (जैसे साथी, बच्चे, माता-पिता)				
14.	क्या आपको दूसरों के साथ बातचीत करने में कोई कठिनाई हुई है? (जैसे मित्र, पड़ोसी, सहकर्मी, डेट्स)				
15.	क्या आपको अपने रूप-रंग या शरीर की छवि के बारे में कोई परेशानी हुई है?				
16.	क्या आप अलग-थलग महसूस करते हो?				
एकल वस्तु					
17.	क्या आपको यौन मामलों के बारे में कोई कठिनाई हुई है?				

18.	क्या आपको परिवार बनाने की योजना के बारे में कोई परेशानी हुई है?				
19.	क्या आपको इस बात में कोई कठिनाई हुई है कि आप कहाँ रहते हो? (जैसे स्थान, पहुंच, नामी, हीटिंग, पड़ोसी, सुरक्षा)				
20.	क्या आपको यात्रा करने या छुट्टी लेने की अपनी योजनाओं में कोई कठिनाई हुई है?				
21.	क्या आपको अपने रोज़मर्रा के जीवन के किसी अन्य क्षेत्र में कोई कठिनाई हुई है?				

खंड -डी: कैंसर रोगियों के बीच चिंता / अवसाद का आकलन करने के लिए प्रश्नावली

अस्पताल की चिंता और अवसाद के पैमाने (एचएडीएस)

<u>अस्पताल की चिंता और अवसाद स्केल (HADS)</u>

- इसमें कुल 14 आइटम होते हैं, जिनमें से 7 आइटम चिंता स्तर से संबंधित हैं और 7 आइटम अवसाद स्तर से संबंधित हैं।

- उस उत्तर के बगल में स्थित बॉक्स को चेक करें जो पिछले सप्ताह में आप कैसा महसूस कर रहे हैं, इसके सबसे करीब है।
- आपके उत्तरों पर बहुत अधिक समय न लें: आपका तत्काल सबसे अच्छा है।

<u>भाग 1 – चिंता स्केल</u>

1) **मैं तनाव या 'घाव' महसूस करता हूं:**

3) ज्यादातर समय

2) बहुत ज्यादातर समय

1) समय-समय पर, कभी-कभी

0) बिलकुल नहीं

2) **मुझे एक तरह का डर लगता है जैसे कि कुछ भयानक होने वाला है।**

3) बहुत निश्चित रूप से और काफी बुरी तरह से।

2) हां, लेकिन बहुत बुरी तरह से नहीं।

1) थोड़ा सा, लेकिन मुझे इसकी चिंता नहीं है।

0) बिलकुल नहीं

3) **मेरे मस्तिष्क में चिंता के विचार आते हैं:**

3) एक लम्बे समय तक

2) ज्यादातर समय

1) समय-समय पर, लेकिन अक्सर नहीं।

0) केवल कभी-कभी

4) **मैं आराम से बैठ सकता हूं और आराम महसूस कर सकता हूं:**

0) निस्संदेह

1) आम तौर पर

2) अक्सर नहीं

3) बिलकुल नहीं

5) **मुझे पेट में हमेशा घबराहट के कारण 'तितलियों' की तरह एक प्रकार का भय महसूस होता है:**

0) बिलकुल नहीं

1) कभी कभी

2) अक्सर

3) बहुत बार

6) **मैं बेचैन महसूस करता हूं क्योंकि मुझे हमेशा चलना होता हैं।**

3) वास्तव में बहुत कुछ

2) काफी कुछ

1) बहुत ज्यादा नहीं

0) बिलकुल नहीं

7) **मुझे अचानक घबराहट होती हैं:**

3) वास्तव में

2) बहुत बार।

1) अक्सर बहुत बार

0) नहीं बिलकुल नहीं

<u>भाग 2 – अवसाद स्केल</u>

1) **मैं अभी भी उन चीजों का आनंद लेता हूं जिनका मैं आनंद लेता था:**

0) निश्चित रूप से उतना ही

1) इतना ज्यादा नहीं।

2) केवल थोड़ा सा

3) शायद ही कभी

2) **मैं हंस सकता हूं और चीजों की मजाकिया पक्ष देख सकता हूं।**

1) जितना मैं हमेशा कर सकता था

1) अब इतना नहीं

2) निश्चित रूप से अब इतना नहीं।

3) बिलकुल नहीं

3) **मैं खुश महसूस करता हूं:**

3) बिलकुल नहीं

2) अक्सर नहीं

1) कभी कभी

0) ज्यादातर समय

4) **मुझे लगता है जैसे मैं कमजोर हो गया हूं:**

3) लगभग हर समय।

2) बहुत बार

1) कभी कभी

0) बिलकुल नहीं

5) **मैंने अपनी उपस्थिति में रुचि खो दी है:**

3) निस्संदेह

2) मैं उतनी देखभाल नहीं करता जितना मुझे करना चाहिए।

1) मैं उतना ध्यान नहीं रख सकता

0) मैं हमेशा की तरह ही देखभाल करता हूं।

6) **मैं चीजों के लिए तत्पर हूँ:**

0) जितना मैंने कभी नहीं किया

1) पहले की तुलना में कम

2) निश्चित रूप से पहले की तुलना में कम

3) शायद ही कभी

7) **मैं एक अच्छी किताब या रेडियो या टीवी प्रोग्राम का आनंद ले सकता हूं। प्रोग्राम:**

0) अक्सर

1) कभी कभी

2) अक्सर नहीं

3) बहुत कम

ANNEXURE 4

LIST OF EXPERTS FOR CONTENT VALIDITY

SR. NO.	NAME OF EXPERT	DEPARTMENT AND DESIGNATION
1.	**Dr. Anurag Bhai Patidar**	Medical-Surgical Nursing, Associate Professor College of Nursing, AIIMS Bhopal
2.	**Mrs. Ranjana Verma**	Medical-Surgical Nursing, Assistant Professor College of Nursing, AIIMS Bhopal
3.	**Mr. R Velmurugan**	Medical-Surgical Nursing, Assistant Professor College of Nursing, AIIMS Bhopal
4.	**Mr. Kumarasamy AP.**	Medical-Surgical Nursing, Assistant Professor College of Nursing, AIIMS Bhopal
5.	**Dr. Priyanka Raj Ahirwar**	Senior Resident, Department of Radiotherapy AIIMS, Bhopal
6.	**Dr. Vipin Kharade**	Assistant Professor, Department of Radiotherapy AIIMS, Bhopal
7.	**Dr. Rashmi Sorawag**	Senior Resident, Department of Radiotherapy AIIMS, Bhopal
8.	**Dr. Arvind**	Senior Resident, Department of Radiotherapy AIIMS, Bhopal
9.	**Dr. Solomon James**	Medical-Surgical Nursing, Nursing Tutor College of Nursing, AIIMS Raipur
10.	**Mr. Sharun N.V**	Medical-Surgical Nursing, Associate Professor

		College of Nursing, AIIMS Mangalagiri
11.	**Dr. Preksha Sharma**	Oncology Nursing, Associate Professor College of Nursing, Faridkot University
12.	**Mr. Anil Kumar**	Medical-Surgical Nursing, Associate Professor College of Nursing, Faridkot University

ANNEXURE 5

LETTER REQUESTING EXPERTS' OPINION AND SUGGESTIONS FOR THE CONTENT VALIDITY OF TOOL

NURSING COLLEGE OFFICE AIIMS, BHOPAL (M.P.) 462020 Received No. 13316 Date 7/3/24

LETTER REQUESTING EXPERTS' OPINION AND SUGGESTIONS FOR THE CONTENT VALIDITY OF RESEARCH TOOL

Date:

From,
Shalini Patel
M.Sc. Nursing (Batch 2023-25)
Nursing college, AIIMS Bhopal.

To,
.....
.....
.....

Subject: Requesting the expert's opinion and suggestion for the content validity of research tool

Respected Sir/ Madam,

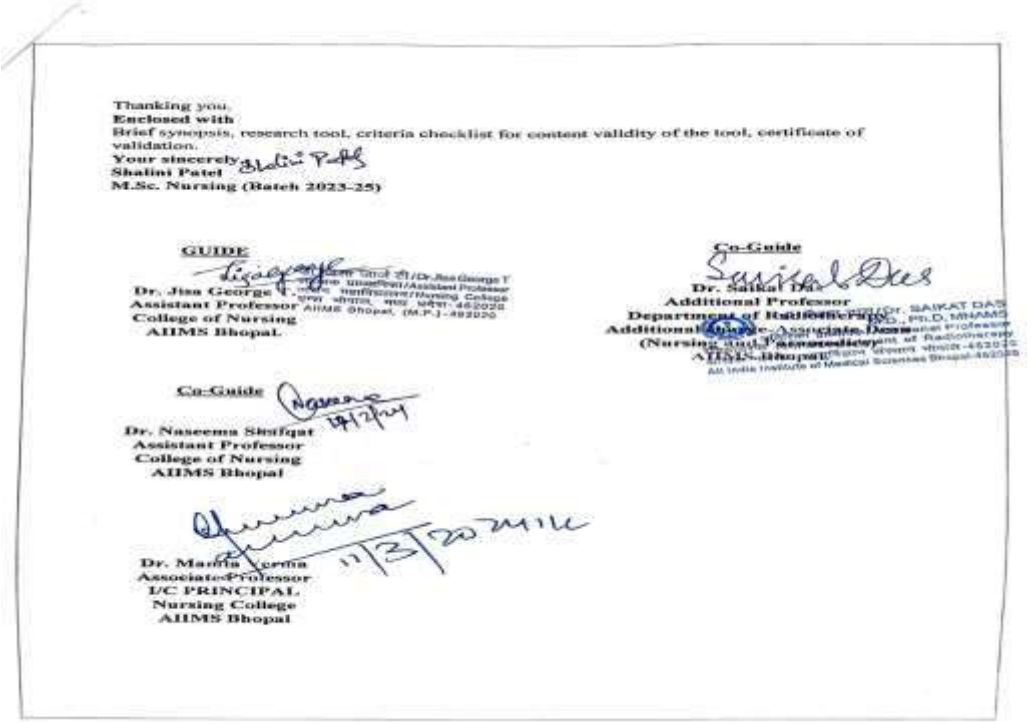
I, Shalini Patel, M.Sc. Nursing (Batch 2023-25) student in Oncology Nursing at Nursing College of AIIMS Bhopal. I have selected the topic mentioned below for my dissertation to be submitted as partial fulfillment of Masters in Nursing Degree programme, at the nursing college, AIIMS Bhopal.

Title of the study: "A study to assess the Stigma, Social difficulties and its Associated factors among Cancer patients at a tertiary care hospital, Bhopal."

In this regard I have prepared the following:

1. Screening tool
1. Self-Structured Questionnaire to assess socio-demographic data and clinical data of cancer patients
2. Structured Tool to measure cancer stigma: Parent version
3. Structured Social difficulties inventory
4. Structured Hospital Anxiety and Depression Scale (HADS)

Kindly go through the tool and give your valuable remarks and suggestion for any modification needed in the content.
I shall be grateful to you for your valuable remarks and suggestion.



Thanking you,
Enclosed with
Brief synopsis, research tool, criteria checklist for content validity of the tool, certificate of validation.
Your sincerely
Shalini Patel
M.Sc. Nursing (Batch 2023-25)

GUIDE

Dr. Jiss George T.
Assistant Professor
College of Nursing
AIIMS Bhopal.

Co-Guide

Dr. Saikat Das
Additional Professor
Department of Radiotherapy
Additional Dean - Associate Dean (Nursing and Paramedical)
AIIMS Bhopal

Co-Guide

Dr. Naseema Shafiqat
Assistant Professor
College of Nursing
AIIMS Bhopal

Dr. Mamta Sharma
Associate Professor
I/C PRINCIPAL
Nursing College
AIIMS Bhopal

ANNEXURE 6

CRITERIA CHECKLIST FOR THE VALIDATION OF THE TOOL

Dear Experts,

This study consists Self- structured tool, which consists following:

- ✓ Screening tool for cancer patients.
- ✓ Section A- Socio-demographic and Clinical characteristics of cancer patients.

Screening tool for cancer patients.

- Screening tool consist of 8 items.

Section A- Socio-demographic data and clinical characteristics of cancer patients.

- 8 items under Socio- demographic data of the Cancer patient.
- 8 items under clinical data of Cancer patient.
- We need your expertise judgement on degree of relevancy of each item to the measure domain. If there is any suggestions and modifications, please mention in the remark column.
- Your expert opinion and kind cooperation will be highly appreciated.

Item number	Highly relevant 4	Quite relevant 3	Somewhat relevant 2	Not relevant 1	Remarks
Screening tool for cancer patients					
1.					
2.					
3.					
4.					

5.					
6.					
7.					
8.					
Socio demographic data of the cancer patient					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
Clinical data of Cancer patient					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

ANNEXURE 7

CONTENT VALIDATION CERTIFICATE

CERTIFICATION OF VALIDATION

This is to certify that Questionnaire/Tool constructed by Shalini Patel, M.Sc. Nursing 2023-25 batch student, Nursing College, AIIMS Bhopal, to be used in her study titled - **"A study to Assess the Stigma, Social Difficulties and its Associated Factors among Cancer Patients at a Tertiary Care Hospital, AIIMS Bhopal."** has been validated by me and is found to be valid.

Overall Remark:

Signature:

Name of the Expert:

Designation:

Name of the Institution:

Official Seal:

Date:

Place:

ANNEXURE 8

CERTIFICATE OF TRANSLATION (HINDI)

CERTIFICATE OF TRANSLATION

TO WHOM IT MAY CONCERN

This is to certify that Ms. Shalini Patel, M.Sc. Oncological Nursing student of Nursing College, AIIMS Bhopal is conducting research on topic "**A study to assess the Stigma, Social difficulties and its associated factors among Cancer patients at a tertiary care hospital, Bhopal**" The Hindi version of Research tool, Screening tool, Participant Information Sheet (PIS) and Participant Informed Consent Form (PICF) for this study is a true and accurate translation of the English version and is valid to collect data for research.

अनिदकृष्ण
सहायक अधिकारी
कार्या.-मुख्य महाप्रबंधक
मध्यप्रदेश दूरसंचार परिमंडल

Seal & Signature .....

Name of the language expert : ANIDA KRISHNA VERMA.

Designation : ASSTT. DIRECTOR (OFFICIAL LANGUAGE)

Qualification : M.A. (HINDI, TRANSLATION STUDIES)

Date : 07/06/2024.

Place : BHOPAL. (MP)

ANNEXURE 9

CERTIFICATE OF TRANSLATION (ENGLISH)

CERTIFICATE OF BACK TRANSLATION (HINDI TO ENGLISH)

TO WHOM IT MAY CONCERN

This is to certify that Ms. Shalini Patel, M.Sc. Oncological Nursing student of Nursing College, AIIMS Bhopal is conducting research on topic "A study to assess the Stigma, Social difficulties and its associated factors among Cancer patients at a tertiary care hospital, Bhopal". The English version of Research tool, Screening tool, Participant Information Sheet (PIS) and Participant Informed Consent Form (PICF) for this study is a true and accurate translation of the Hindi version and is valid to collect data for research.

Seal & Signature : ..... 13/9/2024 .....

Name of the language expert: .... Dr. Jyoti Thakur

Designation: .... Faculty in English .....

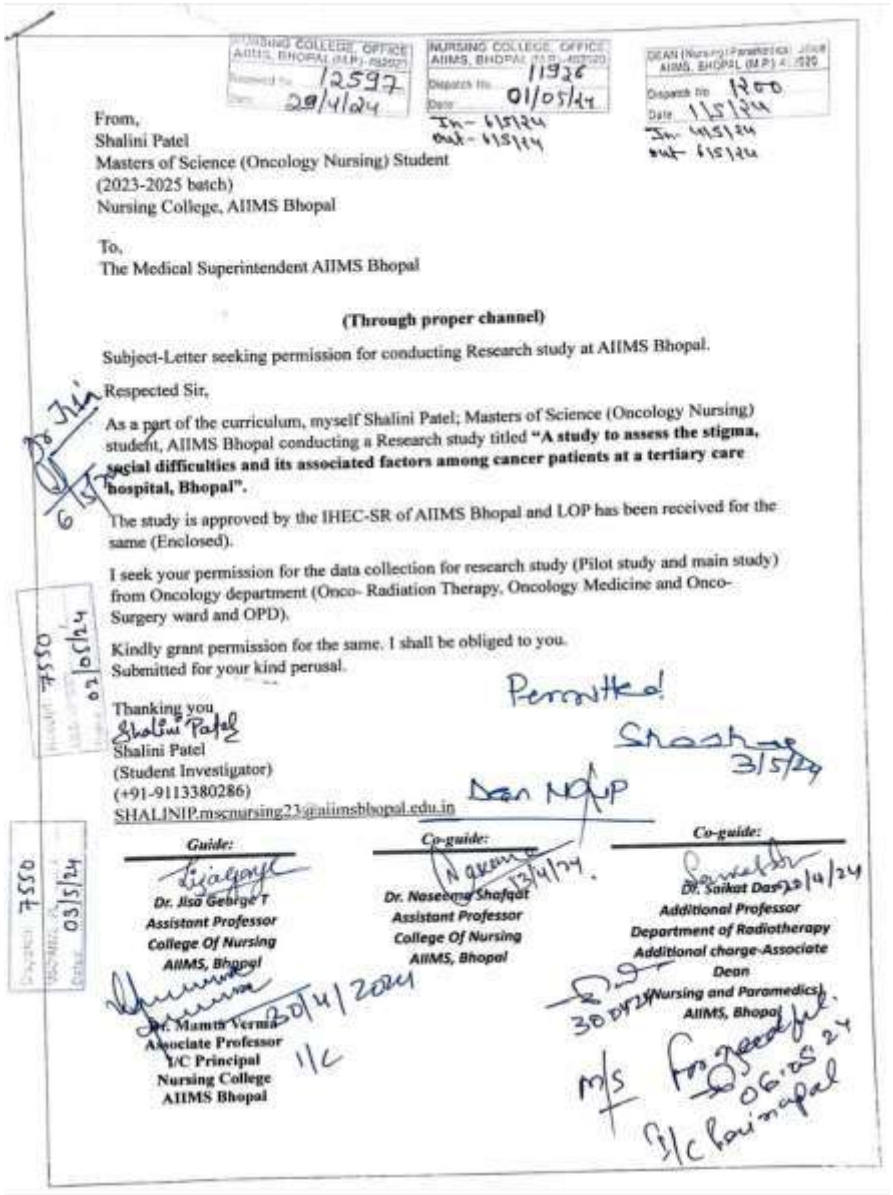
Qualification: .... Ph.D .....

Date: .... 13.09.2024 .....

Place: .... Bhopal .....

ANNEXURE 10

LETTER SEEKING PERMISSION TO CONDUCT THE STUDY



From,
Shalini Patel
Masters of Science (Oncology Nursing) Student
(2023-2025 batch)
Nursing College, AIIMS Bhopal

To,
The Medical Superintendent AIIMS Bhopal

(Through proper channel)

Subject-Letter seeking permission for conducting Research study at AIIMS Bhopal.

Respected Sir,

As a part of the curriculum, myself Shalini Patel; Masters of Science (Oncology Nursing) student, AIIMS Bhopal conducting a Research study titled **"A study to assess the stigma, social difficulties and its associated factors among cancer patients at a tertiary care hospital, Bhopal".**

The study is approved by the IHEC-SR of AIIMS Bhopal and LOP has been received for the same (Enclosed).

I seek your permission for the data collection for research study (Pilot study and main study) from Oncology department (Onco- Radiation Therapy, Oncology Medicine and Onco-Surgery ward and OPD).

Kindly grant permission for the same. I shall be obliged to you.
Submitted for your kind perusal.

Thanking you
Shalini Patel
Shalini Patel
(Student Investigator)
(+91-9113380286)
SHALINIP.mscnursing23@aiimsbhopal.edu.in

Permitted!

Guide:
Dr. Jisa Gebrige T
Assistant Professor
College Of Nursing
AIIMS, Bhopal

Co-guide:
Dr. Naseema Shafqat
Assistant Professor
College Of Nursing
AIIMS, Bhopal

Co-guide:
Dr. Saikat Das
Additional Professor
Department of Radiotherapy
Additional charge-Associate Dean
(Nursing and Paramedics)
AIIMS, Bhopal

Dr. Mamta Verma
Associate Professor
I/C Principal
Nursing College
AIIMS Bhopal

Enclosure-

1. Research Proposal
2. LOP From IHEC-SR, AIIMS Bhopal.

Copy to-

1. The cheid Nursing Officer
2. HOD Oncology department (Onco- Radiation Therapy, Oncology Medicine and Onco-Surgery ward and OPD).
3. SNO Oncology department (Onco- Radiation Therapy, Oncology Medicine and Onco-Surgery ward and OPD).

ANNEXURE 11

PARTICIPANT INFORMATION SHEET (ENGLISH)

PARTICIPANT INFORMATION SHEET

Date:15/01/2024

Title of the Study- "**A Study to Assess the Stigma, Social difficulties and its Associated Factors among Cancer Patients at Tertiary Care Hospital, AIIMS Bhopal."**

Student Investigator: Ms. Shalini Patel, M.Sc. Nursing Student (2023-2025)

Guide: -Mrs. Ranjana Verma, Assistant Professor, Nursing College, AIIMS Bhopal

Co-Guide: Dr. Naseema Shafqat, Assistant Professor, Nursing College, AIIMS Bhopal

Co-Guide: Dr. Saikat Das, Associate Dean (Nursing and Paramedics), AIIMS, Bhopal

Introduction: -

- Assessment of stigma and social difficulties can help determine and recognize the overall stigma and social problems in the community and help in identify situations that need intervention.

Purpose of study:

- This study helps us to track changes in perceived stigma, social difficulties, and associated factors among cancer patients. This could provide insights into the long-term impact of cancer on individuals.
- Use study findings to inform the development of targeted interventions that address stigma and social challenges faced by cancer patients. Evaluate the effectiveness of these interventions in improving patient outcomes.

- Use study findings to inform public health initiatives aimed at reducing societal stigma associated with cancer, fostering awareness, and promoting a supportive environment for affected individuals.

Taking part-it involves:

a. Do I have to take part?

Participation in this research is entirely voluntary. A decision to not take part, or to withdraw at any time, will not affect your rights or medical care in any way.

b. What is expected of me if I take part?

If you participate, you will have to fill some tools or answer questions by self or telephonically.

c. How long will my part in the study last?

Your participation in this study would last for one time only.

d. Do I have to come for extra visits or undergo extra investigation for the study?

No additional visits is required for the study.

e. What are the possible benefits in taking part?

The study will assess the level of stigma, social difficulties and its associated factors among cancer patients which can be baseline data for identify situations that need intervention.

f. What are the possible disadvantages and risk of taking part?

There are no major foreseeable disadvantages or risk because of the study.

g. What happens to the information collected from me?

All information collected will be kept strictly confidential and not shared with anyone. Result from the study will be reported as group data and will not identify in any way.

h. What if I change my mind regarding participation in the study?

You are entitled to change your mind and withdraw at any time during the study without any disadvantages or penalty.

i. Whom do I contact for more information or if I have further questions or concerns?

If you want any information or have questions or concerns, you can contact:

Ms. Shalini Patel

Post graduate student

Nursing College,

AIIMS Bhopal

Ph: 9113380286

Email: SHALINIP.mscnursing23@aiimsbhopal.edu.in

Dr. Ankur Joshi
Member Secretary,
Institution Human Ethics Committee
Student Research
Ph: 8818899050
Email: ihecpgr@aiimsbhopal.edu.in

ANNEXURE 12

PARTICIPANT INFORMATION SHEET (HINDI)

प्रतिभागी सूचना पत्रक

दिनांक:15/01/2024

1. **अध्ययन का शीर्षक-** "तृतीयक देखभाल अस्पताल, एम्स भोपाल में कैंसर रोगियों के बीच गलत धारणा, सामाजिक कठिनाइयों और इसके संबंधित कारकों का आकलन करने के लिए एक अध्ययन।
2. **छात्र अन्वेषक:** सुश्री शालिनी पटेल, एम.एससी नर्सिंग छात्रा (2023-2025)
3. **गाइड:** - श्रीमती रंजना वर्मा, सहायक प्रोफेसर, नर्सिंग कॉलेज, एम्स भोपाल
4. **सह-गाइड:** डॉ नसीमा शफकत, सहायक प्रोफेसर, नर्सिंग कॉलेज, एम्स भोपाल
5. **सह-गाइड:** डॉ सैकत दास, एसोसिएट डीन (नर्सिंग और पैरामेडिक्स), एम्स, भोपाल

6. **परिचय:-**

• गलत धारणा और सामाजिक कठिनाइयों का आकलन समुदाय में समग्र गलत धारणा और सामाजिक समस्याओं को निर्धारित करने और पहचानने में मदद कर सकता है और उन स्थितियों की पहचान करने में मदद कर सकता है जिन्हें उपचार की आवश्यकता है।

7. **अध्ययन का उद्देश्य:**

✓ ▪ यह अध्ययन हमें कैंसर रोगियों के बीच कथित गलत धारणा, सामाजिक कठिनाइयों और संबंधित कारकों में परिवर्तन को ट्रैक करने में मदद करेगा। यह व्यक्तियों पर कैंसर के दीर्घकालिक प्रभाव में अंतर्दृष्टि प्रदान कर सकता है।

- ✓ ▪ लक्षित उपचार के विकास को विकसित करने के लिए अध्ययन निष्कर्षों का उपयोग करें जो कैंसर रोगियों द्वारा सामना किए जाने वाले गलत धारणा और सामाजिक चुनौतियों को रंगित करते हैं। रोगी के परिणामों में सुधार करने में इन हस्तक्षेपों की प्रभावशीलता का मूल्यांकन करें।
- ✓ ▪ कैंसर से जुड़े सामाजिक गलत धारणा को कम करने, जागरूकता को बढ़ावा देने और प्रभावित व्यक्तियों के लिए एक सहायक वातावरण को बढ़ावा देने के उद्देश्य से सार्वजनिक स्वास्थ्य उपायो को विकसित करने के लिए अध्ययन निष्कर्षों का उपयोग करें।

8. भाग लेने में शामिल हैं:

a. क्या मुझे भाग लेना चाहिए?

इस शोध में भागीदारी पूरी तरह से स्वैच्छिक है। भाग नहीं लेने का निर्णय, या किसी भी समय नाम वापस लेने का निर्णय, किसी भी तरह से आपके अधिकारों या चिकित्सा देखभाल को प्रभावित नहीं करेगा।

b. अगर मैं भाग लेता हूं तो मुझसे क्या उम्मीद की जाती है?

यदि आप भाग लेते हैं, तो आपको कुछ फार्म भरने होंगे या स्वयं टेलीफोन द्वारा सवालों के जवाब देने होंगे।

c. अध्ययन में मेरी भागीदारी कब तक चलेगी?

इस अध्ययन में आपकी भागीदारी केवल एक बार के लिए होगी।

d. क्या मुझे इस अध्ययन के लिए अलग से आना पड़ेगा या अतिरिक्त जांच जरूरी होगी?

अध्ययन के लिए अलग से आने की आवश्यकता नहीं है।

e. भाग लेने में संभावित लाभ क्या हैं?

यह अध्ययन कैंसर रोगियों के बीच धारणा, सामाजिक कठिनाइयों और इसके संबंधित कारकों के स्तर का आकलन करेगा जो उपचार की आवश्यकता वाली स्थितियों की पहचान करने के लिए आधारभूत डेटा हो सकता है।

f. भाग लेने के संभावित नुकसान और जोखिम क्या हैं?

अध्ययन के कारण कोई बड़ा नुकसान या जोखिम नहीं है।

g. मुझसे एकत्र की गई जानकारी का क्या किया जाएगा?

एकत्र की गई सभी जानकारी को पूरी तरह से गोपनीय रखा जाएगा और किसी के साथ साझा नहीं किया जाएगा।अध्ययन के परिणाम को समूह डेटा के रूप में रिपोर्ट किया जाएगा और किसी भी तरह से उजागर पहचान नहीं की जाएगी।

h. इस अध्ययन मे भाग लेने के लिए मेरे विचार बदलने पर क्या होगा?

आप बिना किसी क्षति या दंड के, अध्ययन के दौरान किसी भी समय अपना विचार बदलने और वापस लेने के हकदार हैं।

i. इस संबंध मे अधिक जानकारी के लिए या बाद मे मेरे मन मे कोई प्रश्न या शंका होने पर मुझ किनसे संपर्क करना होगा?

यदि आप कोई जानकारी चाहते हैं या आपके कोई प्रश्न या जिज्ञासा हैं, तो आप संपर्क कर सकते हैं:

सुश्री शालिनी पटेल
स्नातकोत्तर छात्र
नर्सिंग कॉलेज,
एम्स भोपाल
पीएच: 9113380286
ईमेल:
SHALINIP.mscnursing23@aiimsbhopal.edu.in

डॉ. अंकुर जोशी
सदस्य सचिव,
संस्थागत नैतिक आचरण समिति छात्र अनुसंधान
पीएच: 8818899050
ईमेल: ihecpgr@aiimsbhopal.edu.in

ANNEXURE 13

INFORMED CONSENT SHEET

प्रतिभागी सूचना सहमति प्रपत्र

[PARTICIPANT INFORMED CONSENT FORM (PICF)]

इस अध्ययन के लिए प्रतिभागी का पहचान नंबरः

…….....

Participant Identification Number for this Study:

……

अनुसंधान का शीर्षकः – **"तृतीयक देखभाल अस्पताल, एम्स भोपाल में कैंसर रोगियों के बीच सामाजिक धारणा, सामाजिक कठिनाइयों और इसके संबंधित कारकों का आकलन करने के लिए एक अध्ययन।"**

Title of Project: "**A Study to Assess the Stigma, Social Difficulties and its Associated Factors among Cancer Patients at Tertiary Care Hospital, AIIMS Bhopal.**"

शोधकर्ता छात्र का नाम - शालिनी पटेल फोन नं: 9113380286

Name of Student Investigator: Shalini Patel Tel No.(s): 9113380286

शोध मार्गदर्शक का नाम : श्रीमती रंजना वर्मा

Name of Thesis Guide: Mrs. Ranjana Verma

मैंने दिनांक 20.08.2022 के सूचना पत्रक संस्करण II में दिए गए सभी तथ्यों को सावधानीपूर्वक पढ़ लिया है/ मुझे अपनी भाषा में स्पष्ट रूप से विस्तारपूर्वक समझा दिया गया है, और मैंने तथ्यों को पूर्णतः समझ लिया है। मैं पुष्टि करता/ करती हूँ, कि मुझे सवाल पूछने के अवसर प्रदान किए गए। The contents of the

information sheet version II dated 20 August 2022 that was provided have been read carefully by me / explained in detail to me, in a language that I comprehend, and I have fully understood the contents. I confirm that I have had the opportunity to ask questions.

मुझे इस अध्ययन की प्रकृति एवं उद्देश्य और इसके संभावित जोखिमों / लाभों तथा अध्ययन की अनुमानित अवधि एवं अन्य प्रासंगिक जानकारी के बारे में विस्तारपूर्वक समझा दिया गया है। मुझे पता है कि इस अध्ययन में मेरी भागीदारी स्वैच्छिक है तथा मैं इस अध्ययन से किसी भी समय बिना कोई कारण बताए, अपना नाम वापस लेने के लिए स्वतंत्र हूं और नाम वापस लेने पर मेरी चिकित्सा देखभाल या कानूनी अधिकारों पर कोई प्रभाव नहीं पड़ेगा। The nature and purpose of the study and its potential risks/benefits and expected duration of the study, and other relevant details of the study have been explained to me in detail. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal right being affected.

मैं समझता/समझती हूं कि इस अनुसंधान में मेरी भागीदारी से मेरे बारे में एकत्र की गई जानकारी और मेरे चिकित्सीय दस्तावेजों के किसी भी भाग को एम्स के जिम्मेदार व्यक्तियों द्वारा ही देखा जाएगा। मैं इन व्यक्तियों को मेरे रिकॉर्ड प्राप्त करने की अनुमति प्रदान करता/ करती हूँ। I understand that the information collected about me from my participation in this research and sections of any of my medical notes may be looked at by responsible individuals from AIIMS. I give permission for this individual to have access to my records.

यदि प्रतिभागी बच्चा है तो उसकी मौखिक या लिखित सहमति प्राप्त की गई है। If participants is child, his/her verbal of written assent has been obtained.

मैं उक्त अध्ययन में भाग लेने के लिए सहमत हूं/I agree to take part in the above study.

_____

(प्रतिभागी के हस्ताक्षर / बांए अंगूठे का निशान) (Signature/Left Thumb Impression)

दिनांक/Date……स्थान/Place …….....

प्रतिभागी का नाम/Name of the participant…….....

पिता/पति/पत्नी का नाम /Son/Daughter/Spouse of…….

डाक का पूरा पता /Complete Postal Address …….....

अगर अशिक्षित हों / If illiterate.

सूचना पत्र को प्रतिभागी को पढ़ा और समझाया गया है और प्रश्न पूछने का अवसर दिया गया है। मैं पुष्टि करता हूं कि व्यक्ति ने स्वतंत्र रूप से अपनी सहमति दी है ।

The information sheet has been read and explained to the participant and given the opportunity to ask questions. I confirm that the individual has given consent freely.

कानूनी रूप से स्वीकार्य प्रतिनिधि या निष्पक्ष गवाह के हस्ताक्षर

Signature of Legally acceptable representative or impartial witness.

दिनांक/Date

एलएआर या निष्पक्ष गवाह का नाम / Name of LAR or impartial witness .

पता / Address :-

प्रमाणित किया जाता है कि उक्त सहमति मेरी उपस्थिति में प्राप्त की गई ।

This is to certify that the above consent has been obtained in my presence.

_____

छात्र शोधकर्ता के हस्ताक्षर दिनांक…….

स्थान……

Signature of the student Investigator Date…… Place……

कृपया ध्यान देः सहमति प्रपत्र तीन प्रतियों में (1) रोगी के लिए, (2) शोधकर्ता, (3) संस्थान के लिए तैयार करें ।

(छात्रों से अनुरोध है कि आसानी से समझ आने योग्य हिंदी अनुवाद स्वयं तैयार करें)

NB: Three copies should me made, for (1) Patient, (2) Researcher, (3) Institution

(Students are requested to prepare the translation in simple understandable Hindi on their own.)

ANNEXURE 14

MASTER DATA SHEET

		SECTION A: - QUESSTIONAIRE TO ASSESS SOCIO DEMOGRAPHIC DATA AND CLINICAL VARIABLES PART 1: - SOCIO DEMOGRAPHIC DATA										
PT_ID	AGE	GENDER	RELIGION	EDU	OCCU	COMMU	MARITAL_STAT	FAM_TYPE	FAM_SUPP	ITEM KUPPU_1	ITEM KUPPU_2	ITEM KUPPU_3
1	3	2	1	2	1	1	2	1	7	3	2	2
2	1	1	1	3	4	1	2	2	1	3	4	1
3	4	2	1	2	1	1	2	1	4	2	5	1
4	5	2	1	2	5	1	2	2	3	2	5	1
5	4	2	1	1	1	1	2	2	4	1	2	1
6	5	2	1	1	1	2	2	2	4	1	3	1
7	5	1	2	5	4	2	2	2	4	5	6	3
8	3	2	2	2	5	2	2	2	4	2	2	1
9	1	1	1	3	5	2	1	2	2	3	4	3
10	3	1	1	2	4	2	2	2	4	1	3	2
11	2	2	1	3	4	2	2	1	4	4	3	3
12	4	2	1	1	5	1	2	2	4	1	2	1
13	5	1	1	2	4	2	2	2	4	2	6	3
14	4	1	1	3	3	2	2	2	4	3	3	2
15	2	2	1	2	1	1	2	2	4	2	2	1
16	5	1	2	2	4	2	2	1	4	2	6	3
17	5	1	1	2	4	1	2	2	4	2	5	2
18	4	2	1	1	1	1	2	2	4	1	2	2
19	3	2	1	1	5	1	2	2	3	2	3	2

20	2	1	1	3	4	2	1	1	5	3	6	2
21	3	1	1	4	4	2	2	2	4	5	6	5
22	3	1	1	3	4	2	2	2	4	4	6	3
23	4	2	1	1	4	2	2	2	3	1	5	3
24	5	2	1	1	1	1	4	2	3	2	2	1
25	3	2	1	1	1	1	2	2	4	1	3	2
26	3	2	2	2	1	1	2	2	4	1	1	1
27	5	2	1	2	5	2	2	2	4	2	5	3
28	2	2	1	1	1	1	2	2	3	4	3	2
29	3	1	2	4	4	2	2	1	4	3	3	2
30	3	1	1	3	4	1	2	1	4	3	6	2
31	5	1	1	1	4	1	2	2	4	1	4	1
32	2	1	1	3	4	2	2	1	4	3	3	2
33	3	2	2	3	1	2	2	1	1	3	4	3
34	5	1	1	3	5	2	5	2	3	6	8	4
35	4	2	1	1	1	1	2	2	3	3	3	2
36	4	2	1	2	3	2	2	1	4	4	3	2
37	3	1	2	3	3	2	2	1	4	3	3	2
38	5	2	2	1	1	1	2	2	4	4	6	3
39	3	2	1	4	4	2	2	2	1	5	6	4
40	5	1	1	2	5	1	2	2	4	3	3	2
41	4	1	2	3	5	1	2	2	2	2	2	1
42	2	1	1	3	5	2	1	2	2	4	5	2
43	4	2	1	2	1	2	2	1	4	5	3	3
44	3	2	2	3	1	1	2	2	4	4	5	1
45	3	1	1	4	3	2	2	1	4	5	6	3
46	2	1	1	3	5	2	1	2	2	4	6	3
47	3	1	2	3	4	2	2	2	2	4	3	2
48	2	2	1	1	1	1	2	2	2	2	2	2
49	2	2	1	2	1	2	2	1	4	5	6	3

50	3	2	1	3	1	2	2	1	4	6	7	4
51	4	2	1	2	1	1	2	2	3	4	6	3
52	2	2	1	4	4	2	2	1	1	6	8	4
53	4	1	1	4	3	2	2	1	4	6	7	3
54	4	1	2	3	4	2	2	1	4	4	6	3
55	4	2	2	1	1	2	2	1	4	5	6	3
56	3	1	1	2	4	2	2	2	4	3	6	2
57	4	2	1	2	1	2	4	2	3	2	2	1
58	2	2	1	4	1	2	2	1	2	5	6	3
59	3	1	1	3	4	2	2	1	4	4	3	2
60	3	1	1	4	4	2	2	1	4	4	4	2
61	5	2	1	3	1	2	2	2	3	5	6	3
62	4	2	1	2	1	2	2	2	3	4	6	2
63	3	2	1	3	1	2	2	1	4	4	3	2
64	4	2	1	1	1	1	2	2	3	1	5	2
65	5	1	1	3	4	2	2	2	3	4	6	4
66	3	2	1	4	4	2	2	2	2	5	6	4
67	5	1	1	1	5	1	2	2	3	2	5	2
68	2	2	1	5	2	2	2	1	2	7	9	9
69	4	2	1	1	1	1	2	2	3	1	2	1
70	3	2	1	3	1	2	2	1	2	4	6	3
71	3	1	1	4	5	2	1	1	2	5	3	3
72	4	2	2	3	1	2	2	2	4	5	7	4
73	3	1	1	3	4	2	2	1	4	4	6	2
74	4	1	2	1	4	1	2	2	4	2	2	1
75	2	2	2	3	1	2	2	1	1	5	3	2
76	3	2	1	5	4	2	3	1	7	6	8	4
77	5	1	1	1	5	1	2	2	3	3	5	2
78	5	1	1	1	5	2	2	2	4	3	6	3
79	3	1	1	2	5	2	2	2	4	3	4	2

80	1	1	1	3	5	2	1	1	2	5	6	3
81	3	2	1	2	1	1	2	2	4	4	5	2
82	4	2	2	1	1	2	2	2	3	3	6	4
83	5	1	1	3	4	2	2	2	3	4	6	3
84	4	1	1	4	4	2	2	2	4	5	8	4
85	1	1	1	3	5	2	1	2	2	5	9	4
86	3	2	1	2	1	1	2	2	1	2	5	2
87	2	2	2	4	1	2	2	1	2	5	6	3
88	5	2	1	1	4	1	2	2	3	3	5	2
89	2	2	2	4	3	2	2	2	1	6	9	10
90	2	2	1	5	3	2	2	1	2	6	8	5
91	4	1	1	5	3	2	2	2	4	6	9	6
92	3	2	1	3	1	2	2	1	4	4	6	3
93	5	2	1	2	1	1	2	2	3	2	5	2
94	3	2	2	2	1	2	2	1	4	4	6	3
95	3	1	2	3	5	1	2	2	2	3	6	3
96	3	1	2	4	4	2	2	1	4	5	6	4
97	4	1	1	2	4	1	2	2	3	2	6	2
98	4	2	1	2	1	2	2	2	4	3	6	3
99	3	1	1	3	4	2	2	2	2	4	6	3
100	5	2	1	1	1	1	2	2	3	2	5	2
101	3	2	1	3	4	2	2	2	4	4	6	3
102	3	1	1	2	4	2	2	1	4	6	6	4
103	2	2	1	3	1	2	2	1	4	5	6	3
104	5	1	1	3	4	1	2	2	3	4	6	4
105	2	2	1	4	2	2	2	1	4	7	9	9
106	2	2	1	3	3	2	2	1	4	5	6	3
107	4	2	1	4	1	2	2	2	3	3	4	2
108	3	1	1	3	5	2	3	2	5	3	6	2
109	3	1	2	2	4	2	2	2	4	4	6	3

110	5	1	2	4	5	2	3	2	3	6	7	4
111	5	2	1	3	3	2	2	2	3	6	9	5
112	5	2	1	2	1	1	4	2	3	2	5	3
113	4	2	1	1	1	1	2	2	3	2	6	2
114	3	1	1	4	3	2	2	1	4	5	6	2
115	3	1	2	2	4	1	2	2	4	2	3	1
116	4	2	1	4	2	2	2	1	3	6	9	6
117	3	1	1	3	3	2	2	1	4	5	6	3
118	5	1	1	4	3	2	2	2	4	6	8	6
119	3	1	1	3	4	2	2	1	4	5	3	3
120	2	2	2	3	1	2	2	1	4	4	3	2
121	4	2	1	2	1	1	2	2	3	4	5	2
122	3	1	1	3	4	2	2	1	4	5	6	3
123	5	1	2	3	3	2	2	1	4	3	4	2
124	2	2	1	5	1	2	2	1	4	6	6	4
125	4	2	1	2	4	1	2	2	3	2	5	2
126	5	1	1	1	5	2	2	2	3	3	3	1
127	3	2	1	3	1	2	2	1	1	5	6	2
128	5	2	1	2	1	1	2	2	3	2	5	2
129	3	2	1	3	3	2	2	1	4	5	6	2
130	5	1	1	3	5	2	2	2	3	5	6	3
131	5	1	1	1	4	1	2	2	3	1	5	2
132	3	2	1	4	4	2	2	1	4	6	7	3
133	2	1	1	3	5	1	1	2	2	3	2	1
134	4	1	1	3	3	2	2	1	4	4	6	3
135	5	2	1	1	1	1	4	2	3	3	5	2
136	3	2	2	2	1	2	2	2	4	4	6	3
137	5	1	1	4	2	2	2	2	3	6	9	5
138	1	1	1	3	5	2	1	1	2	4	6	3
139	3	2	2	2	1	1	2	2	4	3	5	2

140	3	2	1	3	4	2	3	3	7	3	3	2
141	1	1	1	2	1	1	2	2	1	4	5	2
142	4	2	1	2	1	1	2	1	4	2	5	2
143	5	2	1	2	5	1	4	2	3	2	2	1
144	4	2	1	1	1	1	2	2	4	3	3	1
145	5	2	1	1	1	2	2	2	3	5	6	3
146	5	1	2	5	2	2	2	2	4	5	6	3
147	2	2	2	3	1	2	2	2	1	6	8	4
148	1	1	1	3	5	2	1	2	5	3	2	2
149	3	1	1	2	4	1	2	2	3	2	4	2
150	2	2	2	3	4	2	2	1	4	4	4	3
151	4	2	1	1	1	1	2	2	4	1	5	3
152	5	1	1	3	4	2	5	2	3	4	6	3
153	4	1	1	4	3	2	2	2	4	4	4	2
154	2	2	3	3	1	2	2	1	4	5	6	4
155	4	1	2	2	4	2	2	1	4	3	6	3
156	5	1	1	2	5	1	2	2	4	2	5	2
157	4	2	1	1	1	1	2	2	3	3	4	2
158	3	2	1	2	1	1	2	2	3	2	2	1
159	2	1	1	3	4	2	1	2	5	4	7	3
160	3	1	2	4	4	2	2	1	4	5	6	4
161	4	1	1	3	4	2	2	2	2	4	6	4
162	4	2	1	5	4	2	2	2	4	2	5	2
163	5	2	1	1	1	1	4	2	3	2	3	1
164	3	2	1	1	1	1	2	2	3	5	4	2
165	4	2	2	2	1	1	2	2	4	1	2	1
166	5	2	1	2	5	2	2	2	6	2	3	2
167	2	2	1	1	1	1	2	2	5	6	7	3
168	3	1	2	4	4	2	2	2	4	4	3	2
169	3	1	1	2	4	1	2	1	4	2	6	3

170	5	1	1	1	5	1	2	2	4	1	6	2
171	2	1	2	3	4	2	1	1	2	3	4	2
172	3	2	2	3	1	2	2	2	1	3	3	3
173	5	1	1	2	5	2	5	2	3	6	8	5
174	4	2	1	1	1	1	2	2	3	2	2	1
175	4	2	1	3	3	2	2	1	4	5	4	2
176	3	1	2	3	3	2	2	2	2	3	2	1
177	4	2	2	1	1	1	2	2	4	4	5	3
178	3	2	1	4	3	2	2	2	1	6	6	4
179	5	1	1	2	5	1	2	2	4	3	5	2
180	4	1	2	3	5	1	2	2	4	2	3	1
181	2	1	1	3	5	2	1	2	2	4	4	2
182	4	2	1	2	1	2	2	1	4	7	9	6
183	3	2	1	3	1	1	2	2	4	5	5	2
184	3	1	1	4	2	2	2	1	4	6	7	4
185	2	1	1	3	5	2	1	2	5	4	6	3
186	3	1	2	3	4	2	2	2	4	3	4	2
187	2	2	1	2	4	1	2	2	1	2	2	1
188	2	2	1	3	1	2	2	1	4	5	8	3
189	3	2	1	3	4	2	2	1	3	6	8	4
190	4	2	1	2	1	1	2	2	3	4	5	3
191	2	2	1	4	4	2	2	2	1	7	9	7
192	4	1	1	4	3	2	2	1	4	6	7	4
193	4	1	2	3	4	2	2	1	4	4	6	3
194	4	2	2	2	1	2	2	1	4	5	8	4
195	3	1	1	3	4	2	2	1	4	4	6	2
196	4	2	1	2	1	2	4	2	3	1	4	2
197	2	2	1	4	4	2	2	1	2	5	6	4
198	3	1	1	3	4	2	2	1	4	4	6	3
199	3	1	1	4	4	2	2	1	4	4	4	3

200	5	2	1	2	1	2	2	2	3	5	6	5
201	3	2	1	2	1	2	2	2	3	2	6	3
202	2	2	1	3	1	2	2	2	1	3	3	2
203	4	2	1	1	1	1	2	2	6	1	2	1
204	5	1	1	3	4	2	2	2	3	4	4	2
205	3	2	1	4	4	2	2	1	5	5	7	4
206	5	1	1	1	5	1	2	2	3	3	5	2
207	2	2	1	5	2	2	1	1	2	7	9	10
208	4	2	1	1	1	1	2	2	3	2	2	1
209	3	2	1	3	1	2	2	1	4	4	4	2
210	3	1	1	4	4	2	2	2	2	4	3	3
211	4	2	2	2	1	2	2	1	4	5	7	3
212	3	1	1	3	4	2	2	1	4	3	6	2
213	4	1	2	2	4	1	2	2	3	2	6	1
214	2	2	1	3	1	2	2	1	4	7	9	6
215	3	2	1	4	4	2	3	1	7	6	6	4
216	5	1	1	1	5	1	2	2	3	4	5	2
217	5	2	1	1	5	2	2	2	3	3	4	2
218	3	1	1	2	5	2	2	2	4	4	4	2
219	2	1	1	3	4	2	1	1	2	5	6	3
220	3	2	1	2	1	1	2	2	4	2	5	2
221	4	2	2	1	1	2	2	2	3	3	6	4
222	5	2	1	2	4	2	4	2	3	3	4	2
223	4	1	1	4	4	2	2	2	4	6	8	4
224	1	1	1	3	5	2	1	3	2	7	9	5
225	3	2	1	2	1	1	2	2	1	1	5	2
226	2	2	2	3	1	2	2	1	4	5	6	4
227	5	2	1	1	4	1	2	2	5	4	5	2
228	3	2	2	4	3	2	2	2	1	7	9	10
229	2	2	1	5	3	2	2	1	2	6	8	4

230	4	1	1	5	3	2	2	2	4	6	9	5
231	3	2	1	3	1	2	2	1	4	3	4	3
232	5	2	1	2	1	1	2	2	3	2	5	2
233	3	2	2	2	1	2	2	1	6	4	6	3
234	3	1	2	3	5	1	2	2	2	3	6	3
235	3	1	2	4	4	2	2	1	4	5	6	4
236	4	1	1	2	4	1	2	2	3	2	5	2
237	4	2	1	2	1	2	2	2	6	3	3	2
238	3	1	1	3	4	2	2	2	2	4	6	3
239	5	2	1	1	1	1	2	2	3	3	5	2
240	3	2	1	4	4	2	2	2	4	7	6	3
241	3	1	1	3	4	2	2	1	4	6	6	5
242	2	2	1	5	2	2	2	1	4	5	6	3
243	5	1	1	3	4	1	2	2	3	5	6	4
244	2	2	1	4	3	2	2	1	4	7	9	8
245	2	2	2	3	3	2	2	1	4	5	6	3
246	4	2	1	4	1	2	2	2	3	3	3	2
247	3	1	1	3	5	2	3	2	5	3	6	2
248	4	1	2	2	4	2	2	2	4	4	4	2
249	5	1	1	4	5	2	3	2	3	6	8	4
250	5	2	1	4	3	2	2	2	3	6	9	4
251	5	2	1	2	1	1	4	2	6	2	5	3
252	4	2	1	1	1	1	2	2	3	2	2	1
253	3	1	1	4	3	2	2	1	4	5	6	3
254	3	1	2	2	4	1	2	2	4	2	3	1
255	4	2	1	5	2	2	2	1	3	6	8	6
256	3	1	1	3	3	2	2	1	4	4	6	3
257	5	1	1	4	4	2	2	2	4	6	8	4
258	3	1	1	3	4	2	2	1	4	3	3	3
259	2	2	2	3	1	2	2	1	1	3	3	2

260	4	2	1	2	1	1	2	2	3	4	6	3
261	2	1	1	3	4	2	2	5	4	5	6	3
262	5	1	2	3	3	2	2	1	4	2	3	2
263	3	2	1	5	3	2	2	1	4	6	6	4
264	4	2	1	2	4	1	2	2	3	2	5	2
265	5	1	1	1	5	2	2	2	3	3	4	2
266	3	2	1	2	1	2	2	1	1	5	6	2
267	5	2	1	1	1	1	2	2	3	2	5	3
268	4	2	1	3	3	2	2	1	4	4	6	2
269	5	1	1	3	5	2	2	2	4	5	6	3
270	4	1	1	1	4	1	2	2	3	2	5	2
271	3	2	1	4	4	2	2	1	4	6	8	3
272	2	1	1	3	5	1	1	2	2	3	2	1
273	4	1	1	3	3	2	2	1	4	4	6	3
274	5	2	1	1	1	1	4	2	3	3	5	3
275	3	2	2	2	1	2	2	2	4	4	6	4
276	5	1	1	4	2	2	2	2	5	6	8	5
277	1	1	1	3	5	2	1	1	2	5	6	3
278	3	2	2	2	1	1	2	2	1	3	4	2
279	4	2	1	5	3	2	2	1	4	7	8	5
280	3	1	1	4	4	2	2	1	2	5	7	4
281	3	2	2	3	1	2	2	1	1	3	3	2
282	4	2	1	2	1	2	2	2	3	3	5	2
283	5	1	2	3	5	2	2	2	3	4	6	3
284	3	2	1	2	1	2	2	2	5	4	6	3
285	3	1	1	4	5	1	2	2	4	3	5	2
286	3	1	1	3	4	2	2	1	4	3	4	2
287	4	2	2	2	1	2	2	1	6	3	4	2
288	2	1	1	4	4	2	1	2	2	5	6	3
289	3	1	1	2	5	1	2	2	5	2	4	2

290	2	2	1	3	4	2	2	1	4	3	3	2
291	5	1	1	1	1	1	2	2	3	2	2	2
292	4	2	1	4	1	2	2	1	4	6	6	5
293	2	2	1	2	1	2	2	1	5	7	9	7
294	3	1	1	4	4	2	2	1	2	5	6	4
295	3	2	2	3	1	1	2	1	1	3	4	2
296	4	2	1	1	1	1	2	2	3	2	3	2
297	5	1	2	3	5	2	5	2	3	4	6	3
298	3	2	1	2	1	2	2	2	3	5	7	3
299	3	1	1	4	5	1	2	2	4	3	4	2
300	3	1	1	3	4	2	2	1	4	3	5	2
301	4	2	2	2	4	2	2	1	7	2	4	2
302	2	1	1	5	2	2	1	2	2	4	6	3
303	3	2	1	3	5	1	2	2	6	1	2	2
304	2	2	1	3	4	2	2	1	4	6	7	3
305	5	1	1	1	1	1	2	2	3	2	4	2
306	3	2	2	3	1	2	2	1	1	3	4	3
307	3	2	2	4	3	2	2	2	4	7	9	6

		SECTION A: - QUESSTIONAIRE TO ASSESS SOCIAL DEMOGRAPHIC DATA AND CLINICAL VARIABLES PART 2: - CLINICAL VARIABLES DATA										
PT_ID	CLINICAL VAR_1	CLINICAL VAR_2	CLINICAL VAR_3	CLINICAL VAR_4	CLINICAL VAR_5	CLINICAL VAR_5.1	CLINICAL VAR_5.2	CLINICAL VAR_5.3	CLINICAL VAR_5.4	CLINICAL VAR_5.5	CLINICAL VAR_6a	CLINICAL VAR_6b
1	2	2	1	2	2	0	0	0	0	0	3	1
2	2	2	1	2	2	0	0	0	0	0	1	2
3	2	3	1	3	2	0	0	0	0	0	1	1
4	2	3	2	2	2	0	0	0	0	0	3	2
5	2	3	5	4	1	1	2	0	0	0	3	1
6	2	2	1	1	2	0	0	0	0	0	1	2
7	2	5	3	2	1	1	0	0	0	0	1	2
8	2	2	3	2	2	0	0	0	0	0	3	1
9	2	12	2	2	2	0	0	0	0	0	1	2
10	2	1	2	2	2	0	0	0	0	0	1	2
11	2	3	2	1	2	0	0	0	0	0	3	2
12	2	3	3	3	1	1	2	0	0	0	3	1
13	2	1	5	4	1	1	2	0	0	0	3	1
14	2	1	2	2	2	0	0	0	0	0	1	2
15	2	3	1	2	2	0	0	0	0	0	1	2
16	2	1	3	3	2	0	0	0	0	0	3	1
17	2	1	3	4	1	1	2	0	0	0	3	1
18	1	3	3	3	2	0	0	0	0	0	3	1
19	2	2	1	2	2	0	0	0	0	0	1	2
20	2	6	1	3	2	0	0	0	0	0	1	2
21	2	1	2	3	1	1	0	0	0	0	1	1
22	2	1	2	2	2	0	0	0	0	0	1	2
23	2	3	2	1	2	0	0	0	0	0	1	1

24	2	10	1	4	1	0	2	0	0	0	3	1
25	2	1	4	2	1	1	2	0	0	0	1	1
26	2	3	3	4	2	0	0	0	0	0	1	2
27	2	10	2	2	1	1	0	0	0	0	1	1
28	2	1	1	2	2	0	0	0	0	0	1	2
29	2	1	2	4	2	0	0	0	0	0	1	2
30	2	6	2	3	2	0	0	0	0	0	1	2
31	2	5	5	4	1	1	0	0	0	0	1	2
32	2	1	4	4	1	1	0	0	0	0	1	1
33	2	2	2	2	2	0	0	0	0	0	1	2
34	2	1	5	4	1	1	0	0	0	0	3	1
35	2	3	3	3	2	0	0	0	0	0	3	1
36	2	1	2	2	2	0	0	0	0	0	3	1
37	2	6	2	2	1	1	0	0	0	0	1	2
38	2	3	4	4	2	0	0	0	0	0	3	1
39	2	2	3	2	2	0	0	0	0	0	3	1
40	2	5	3	3	2	0	0	0	0	0	1	1
41	2	6	2	2	2	0	0	0	0	0	1	1
42	2	9	2	2	2	0	0	0	0	0	1	2
43	2	3	3	2	2	0	0	0	0	0	3	1
44	2	3	2	2	2	0	0	0	0	0	3	2
45	2	5	1	3	1	0	0	0	4	0	1	1
46	2	12	2	2	2	0	0	0	0	0	1	2
47	2	6	1	2	2	0	0	0	0	0	1	2
48	2	2	1	2	2	0	0	0	0	0	1	2
49	2	3	2	2	2	0	0	0	0	0	3	2
50	2	2	3	3	2	0	0	0	0	0	3	1
51	1	2	5	3	1	0	0	3	0	0	3	1
52	2	2	1	2	2	0	0	0	0	0	1	2
53	2	1	2	2	2	0	0	0	0	0	1	2

54	2	1	2	3	2	0	0	0	0	0	3	1
55	2	3	1	3	2	0	0	0	0	0	1	2
56	2	6	1	2	2	0	0	0	0	0	1	2
57	2	3	4	3	2	0	0	0	0	0	3	1
58	2	3	1	2	2	0	0	0	0	0	1	2
59	2	6	1	3	2	0	0	0	0	0	1	2
60	2	1	1	2	2	0	0	0	0	0	1	2
61	2	2	5	4	2	0	0	0	0	0	1	1
62	2	1	3	3	2	0	0	0	0	0	3	1
63	2	2	2	2	2	0	0	0	0	0	3	1
64	2	3	2	3	2	0	0	0	0	0	3	1
65	2	1	2	2	1	1	0	0	0	0	1	1
66	2	2	2	3	2	0	0	0	0	0	3	1
67	2	1	5	4	2	0	0	0	0	0	3	1
68	2	2	1	2	2	0	0	0	0	0	1	2
69	2	3	3	4	2	0	0	0	0	0	3	1
70	2	3	3	3	2	0	0	0	0	0	1	1
71	2	1	2	2	2	0	0	0	0	0	1	2
72	2	3	3	3	2	0	0	0	0	0	3	1
73	2	10	1	3	1	0	2	0	0	0	1	2
74	2	1	3	2	1	1	0	0	0	0	3	1
75	1	2	1	2	2	0	0	0	0	0	1	2
76	2	3	2	2	2	0	0	0	0	0	1	2
77	2	1	4	4	1	1	2	0	0	0	3	1
78	2	1	4	3	2	0	0	0	0	0	3	1
79	2	5	2	1	2	0	0	0	0	0	1	2
80	2	12	2	2	2	0	0	0	0	0	1	2
81	2	2	2	2	2	0	0	0	0	0	3	1
82	2	2	3	3	2	0	0	0	0	0	3	1
83	2	1	5	4	1	1	0	0	0	0	3	1

84	2	1	3	3	2	0	0	0	0	0	3	1
85	2	12	2	2	2	0	0	0	0	0	1	2
86	2	3	2	2	2	0	0	0	0	0	1	2
87	2	3	1	2	2	0	0	0	0	0	2	2
88	2	1	4	4	2	0	0	0	0	0	3	1
89	2	2	1	2	2	0	0	0	0	0	1	2
90	2	2	1	2	2	0	0	0	0	0	1	2
91	2	1	3	3	2	0	0	0	0	0	3	2
92	2	2	3	2	2	0	0	0	0	0	3	1
93	2	3	5	4	2	0	0	0	0	0	3	1
94	2	3	1	1	2	0	0	0	0	0	1	2
95	2	1	2	2	2	0	0	0	0	0	1	2
96	2	7	1	2	2	0	0	0	0	0	1	2
97	2	1	3	3	1	1	0	0	0	0	3	1
98	2	3	2	3	2	0	0	0	0	0	3	1
99	2	6	1	2	2	0	0	0	0	0	1	2
100	2	3	2	4	2	0	0	0	0	0	3	1
101	2	2	1	2	2	0	0	0	0	0	3	2
102	2	5	1	2	2	0	0	0	0	0	1	2
103	2	2	1	2	2	0	0	0	0	0	1	2
104	2	3	3	3	2	0	0	0	0	0	3	1
105	2	2	2	2	2	0	0	0	0	0	1	1
106	2	2	2	2	2	0	0	0	0	0	3	1
107	2	1	2	3	2	0	0	0	0	0	1	2
108	2	5	2	3	2	0	0	0	0	0	1	1
109	2	6	2	3	2	0	0	0	0	0	1	2
110	2	1	5	4	1	1	2	0	0	0	3	1
111	2	3	5	4	2	0	0	0	0	0	1	1
112	2	1	3	4	2	0	0	0	0	0	3	1
113	2	3	3	3	2	0	0	0	0	0	3	1

114	2	4	2	2	2	0	0	0	0	0	1	2
115	2	5	1	2	2	0	0	0	0	0	1	2
116	2	2	3	2	2	0	0	0	0	0	3	1
117	2	6	2	2	1	1	0	0	0	0	1	2
118	2	1	5	4	2	0	0	0	0	0	3	1
119	2	1	1	2	2	0	0	0	0	0	3	1
120	2	2	2	2	2	0	0	0	0	0	3	1
121	2	1	3	3	2	0	0	0	0	0	3	1
122	2	1	1	2	2	0	0	0	0	0	1	2
123	2	1	1	2	2	0	0	0	0	0	1	2
124	2	3	2	2	2	0	0	0	0	0	2	2
125	2	1	3	3	2	0	0	0	0	0	3	1
126	2	7	1	3	1	1	2	0	0	0	1	2
127	2	3	2	2	2	0	0	0	0	0	1	1
128	2	3	4	4	1	1	0	0	0	0	3	1
129	2	2	1	2	2	0	0	0	0	0	1	2
130	2	1	5	4	1	1	2	0	0	0	3	1
131	2	1	4	4	1	1	0	0	0	0	3	1
132	2	2	2	2	2	0	0	0	0	0	3	1
133	2	5	2	2	2	0	0	0	0	0	1	2
134	2	6	2	2	2	0	0	0	0	0	1	2
135	2	3	5	4	2	0	0	0	0	0	3	1
136	2	2	2	3	2	0	0	0	0	0	3	1
137	2	1	1	2	1	1	2	0	0	0	1	2
138	2	12	3	2	2	0	0	0	0	0	1	2
139	2	3	2	2	2	0	0	0	0	0	3	1
140	2	2	2	3	2	0	0	0	0	0	3	1
141	2	2	1	2	2	0	0	0	0	0	1	2
142	2	3	2	3	1	1	2	0	0	0	1	1
143	2	3	2	2	2	0	0	0	0	0	1	2

144	2	3	4	3	1	1	2	0	0	0	3	1
145	2	2	2	2	1	0	0	0	3	0	4	1
146	2	5	3	1	1	1	0	0	0	0	1	1
147	1	2	3	2	2	0	0	0	0	0	4	1
148	2	12	1	2	2	0	0	0	0	0	1	2
149	2	1	2	3	2	0	0	0	0	0	1	1
150	2	3	2	2	2	0	0	0	0	0	3	2
151	2	3	2	3	1	1	0	0	0	0	3	1
152	2	1	4	3	1	1	2	0	0	0	3	1
153	2	2	2	2	2	0	0	0	0	0	1	2
154	2	3	1	2	2	0	0	0	0	0	2	2
155	2	1	3	4	2	1	2	0	0	0	3	1
156	2	1	3	3	1	1	2	0	0	0	3	1
157	1	3	3	3	2	0	0	0	0	0	3	1
158	2	2	1	2	1	0	0	3	0	0	1	2
159	2	6	1	2	2	0	0	0	0	0	1	2
160	2	5	2	2	1	1	0	0	0	0	4	1
161	2	1	2	2	2	0	0	0	0	0	1	1
162	2	3	2	2	2	0	0	0	0	0	3	1
163	2	10	1	3	1	0	2	3	0	0	3	1
164	2	1	4	3	1	1	2	0	0	0	3	1
165	2	3	3	3	2	0	0	0	0	0	1	1
166	2	10	2	2	1	1	0	3	0	0	1	1
167	2	1	1	2	2	0	0	0	0	0	1	2
168	2	1	2	4	2	0	0	0	0	0	3	2
169	2	6	2	3	2	0	0	0	0	0	1	1
170	2	5	5	3	1	1	0	0	0	0	1	2
171	2	4	4	2	2	0	0	0	0	0	1	2
172	2	2	2	3	2	0	0	0	0	0	1	2
173	2	1	4	4	1	1	2	0	0	0	3	2

174	2	3	3	3	2	0	0	0	0	0	3	1
175	2	1	1	2	2	0	0	0	0	0	1	2
176	2	6	2	2	2	0	0	0	0	0	1	2
177	2	3	4	4	2	0	0	0	0	0	3	1
178	2	2	2	2	2	0	0	0	0	0	4	1
179	2	5	2	3	2	0	0	0	4	0	1	1
180	2	7	2	2	2	0	0	0	0	0	1	2
181	2	4	2	2	2	0	0	0	0	0	1	2
182	2	3	3	3	2	0	0	0	0	0	3	1
183	2	3	1	2	2	0	0	0	0	0	1	2
184	2	5	1	3	1	1	0	0	4	0	1	2
185	2	12	2	2	2	0	0	0	0	0	4	2
186	2	6	1	3	2	0	0	0	0	0	1	2
187	2	2	2	2	2	0	0	0	0	0	1	2
188	2	3	1	2	2	0	0	0	0	0	3	2
189	2	2	3	3	2	0	0	0	0	0	4	1
190	1	3	4	3	1	1	0	0	0	0	3	1
191	2	2	1	3	2	0	0	0	0	0	3	2
192	2	1	2	3	2	0	0	0	0	0	4	1
193	2	1	2	2	2	0	0	0	0	0	3	1
194	2	3	1	3	2	1	2	0	0	0	1	2
195	2	6	1	2	2	0	0	0	0	5	1	2
196	2	3	4	3	2	0	0	0	0	0	2	1
197	2	3	1	2	2	0	0	0	0	0	1	2
198	2	1	1	2	2	0	0	0	0	0	1	2
199	2	1	1	2	2	1	0	0	0	0	1	2
200	2	2	5	4	2	0	0	0	0	0	4	1
201	2	1	3	3	2	0	0	0	0	0	3	1
202	2	2	2	3	2	0	0	0	0	0	3	1
203	2	3	2	2	2	0	0	0	0	0	3	1

204	2	1	1	2	1	1	0	0	0	0	1	1
205	2	2	2	2	2	0	0	0	0	0	3	1
206	2	1	5	4	2	1	2	0	0	0	3	2
207	2	2	1	2	2	0	0	0	0	0	1	2
208	2	3	3	4	2	0	0	0	0	0	3	1
209	2	2	3	3	2	0	0	3	0	0	1	1
210	2	1	2	2	2	0	0	0	0	0	1	2
211	2	3	3	3	2	0	0	0	0	0	3	1
212	2	10	1	2	1	0	2	0	0	0	1	2
213	2	1	3	2	1	1	0	0	0	0	3	1
214	1	2	1	2	2	0	0	3	0	0	1	2
215	2	6	2	2	2	0	0	0	0	0	1	2
216	2	1	4	4	1	1	2	0	0	0	3	1
217	2	8	2	2	2	0	0	0	0	0	1	2
218	2	5	2	2	2	0	0	0	4	0	1	2
219	2	4	2	2	2	0	0	0	0	0	1	2
220	2	2	2	2	2	0	0	0	0	0	3	1
221	2	2	3	3	1	1	0	0	0	0	3	1
222	2	1	5	4	1	1	2	0	0	0	3	2
223	2	5	3	3	2	0	0	0	0	0	3	1
224	2	9	2	2	2	0	0	0	0	0	1	2
225	2	6	2	2	2	0	0	0	0	0	1	2
226	2	3	1	2	2	0	0	0	0	0	2	2
227	2	1	4	4	1	1	0	0	0	0	3	1
228	2	2	2	2	2	0	0	0	0	0	1	2
229	2	2	1	2	2	0	0	0	0	5	1	2
230	2	1	3	3	1	1	0	0	0	0	3	2
231	2	2	3	3	2	0	0	0	0	0	3	1
232	2	3	5	4	2	0	0	0	0	0	2	1
233	2	3	1	2	2	0	0	0	0	0	1	2

234	2	5	2	2	2	0	0	0	0	0	1	1
235	2	7	2	2	2	0	0	0	0	0	1	2
236	2	1	3	4	1	1	0	0	0	0	3	1
237	2	3	2	3	1	1	2	0	0	0	3	1
238	2	6	2	2	2	0	0	0	0	0	1	2
239	2	3	2	4	1	1	2	0	0	0	3	1
240	2	2	1	2	2	0	0	0	0	0	3	1
241	2	5	1	2	2	0	0	0	0	0	1	2
242	2	2	1	2	2	0	0	0	0	0	1	2
243	2	7	3	3	1	1	0	0	0	0	1	1
244	2	2	2	2	2	0	0	0	0	0	1	1
245	2	2	2	3	2	0	0	0	0	0	3	1
246	1	1	2	2	1	1	2	0	0	0	1	2
247	2	5	2	2	2	0	0	0	0	0	1	1
248	2	6	2	3	2	0	0	0	0	0	1	1
249	2	1	5	4	1	1	2	0	0	0	2	1
250	2	3	4	3	2	0	0	0	4	0	3	1
251	2	1	3	4	1	1	0	0	0	0	3	1
252	2	6	3	2	2	0	0	0	0	0	1	2
253	2	4	2	2	2	0	0	0	0	0	1	2
254	2	5	1	2	1	1	0	0	0	0	1	2
255	2	2	3	3	2	0	0	0	0	0	4	1
256	2	1	2	2	1	1	0	0	0	0	1	2
257	2	1	5	4	1	1	2	0	3	0	3	1
258	2	1	1	2	2	0	0	0	0	0	3	1
259	2	2	2	2	2	0	0	0	0	0	3	1
260	2	1	3	3	1	1	0	0	0	0	3	1
261	2	10	1	2	2	1	2	0	0	0	1	2
262	2	1	1	2	2	0	0	0	0	0	1	2
263	2	3	2	2	2	0	0	0	0	0	2	1

264	2	2	3	3	1	0	0	3	4	0	3	1
265	2	7	1	2	1	1	2	0	0	0	1	2
266	2	3	2	2	2	0	0	0	0	0	1	1
267	2	3	4	4	1	1	2	0	0	0	4	1
268	2	2	2	2	2	0	0	0	0	0	1	1
269	2	1	5	4	1	1	2	0	0	0	3	1
270	2	11	3	3	1	1	0	0	0	0	1	2
271	2	2	2	2	2	0	0	0	0	5	3	1
272	2	5	2	2	2	0	0	0	0	0	1	1
273	2	6	2	2	2	0	0	0	0	0	1	2
274	2	3	5	4	2	0	0	0	0	0	3	1
275	2	2	2	3	1	1	0	0	0	0	3	1
276	2	5	1	2	1	1	2	0	0	0	1	2
277	2	12	2	2	2	0	0	0	0	0	1	2
278	2	3	2	2	2	0	0	0	0	0	3	1
279	2	3	2	2	2	0	0	0	0	0	3	1
280	2	8	2	3	1	1	0	0	0	0	1	2
281	2	2	1	2	2	0	0	0	0	0	1	2
282	2	3	4	3	1	0	0	3	0	0	3	1
283	2	1	5	4	1	1	2	0	0	0	3	2
284	2	1	4	4	2	0	0	0	0	0	3	1
285	2	5	3	3	2	0	0	0	0	0	1	2
286	2	6	2	2	2	0	0	0	0	0	1	2
287	2	3	3	3	1	1	0	0	0	0	3	1
288	2	11	2	2	2	0	0	0	0	0	1	2
289	2	1	3	3	1	1	0	0	0	0	3	1
290	2	2	2	2	2	0	0	0	0	0	1	1
291	2	1	4	4	1	1	2	0	0	0	3	1
292	2	2	2	2	1	1	2	0	0	0	4	1
293	1	3	2	2	2	0	0	0	0	0	3	1

294	2	4	2	2	1	1	0	0	0	0	1	2
295	2	2	2	2	2	0	0	0	0	0	4	1
296	2	3	4	3	1	1	2	3	0	0	3	1
297	2	1	5	3	1	1	2	0	0	0	4	1
298	2	1	4	4	2	0	0	0	0	0	3	1
299	2	7	3	3	2	0	0	0	0	0	1	2
300	2	6	2	2	2	0	0	0	0	0	1	2
301	2	3	3	3	1	1	2	0	0	0	3	1
302	2	9	1	2	2	0	0	0	0	0	1	2
303	2	2	3	3	1	1	0	0	0	0	3	1
304	2	2	2	2	2	0	0	0	0	0	1	1
305	2	1	3	4	1	1	2	0	0	0	3	1
306	2	2	2	2	2	0	0	0	0	0	1	2
307	2	2	2	3	1	1	2	0	0	0	4	1

SECTION – B: QUESTIONNAIRE TO ASSESS STIGMA AMONG CANCER PATIENTS TOOL TO MEASURE CANCER STIGMA: PATIENT VERSION												
	DOMAINS_1				**DOMAINS_2**				**DOMAINS_3**			
PT_ID	ITEM_1.1	ITEM_1.2	ITEM_1.3	ITEM_1.4	ITEM_2.1	ITEM_2.2	ITEM_2.3	ITEM_2.4	ITEM_3.1	ITEM_3.2	ITEM_3.3	ITEM_3.4
1	2	2	4	3	2	3	4	1	1	1	1	1
2	4	3	3	4	3	4	3	2	4	4	4	4
3	4	2	2	2	1	3	3	3	4	2	2	2
4	3	3	3	4	2	3	3	2	3	3	2	3
5	2	1	3	4	2	2	4	3	4	4	2	1
6	2	3	3	4	2	1	4	3	1	1	2	1
7	2	3	3	4	2	3	4	2	3	3	3	3
8	2	2	3	3	3	3	4	3	2	2	3	2
9	2	2	3	3	1	1	3	1	1	1	1	1

10	2	2	3	3	3	2	3	2	3	3	3	3
11	2	2	3	3	2	3	3	2	2	2	3	2
12	1	2	3	4	2	3	4	3	3	4	3	3
13	2	3	3	3	3	2	4	3	2	2	2	1
14	2	2	2	3	3	2	3	2	2	2	2	2
15	2	2	3	3	2	3	3	2	2	2	3	2
16	2	3	3	3	3	2	3	2	2	3	2	3
17	3	3	3	4	2	2	4	3	3	3	3	3
18	2	3	3	3	2	3	3	2	2	3	3	2
19	2	3	3	3	3	3	4	2	3	3	3	3
20	2	3	3	4	2	2	4	2	2	2	2	2
21	3	4	3	4	3	3	4	3	3	4	3	3
22	3	3	2	3	3	2	4	3	2	2	2	2
23	2	2	1	2	2	2	3	1	2	2	1	1
24	2	3	3	3	3	2	4	2	2	2	1	1
25	2	3	3	3	3	2	4	3	2	2	2	1
26	3	3	3	4	3	3	4	3	3	4	3	3
27	1	2	2	3	3	2	4	2	3	3	2	2
28	3	3	3	4	3	2	4	2	3	4	3	3
29	2	3	3	4	3	3	4	2	3	4	3	3
30	3	2	3	4	3	3	4	4	4	4	3	2
31	3	3	3	4	2	3	4	3	3	4	3	2
32	3	3	3	4	3	3	4	3	3	3	3	3
33	1	2	3	4	3	3	3	2	2	3	3	3
34	3	4	4	4	3	2	3	3	2	3	3	2
35	2	3	3	4	2	1	4	2	2	3	3	1
36	3	3	3	4	3	1	3	2	1	2	3	2
37	2	3	3	4	2	2	3	2	2	2	3	2
38	2	3	3	4	2	2	3	2	1	2	3	2
39	2	3	4	4	3	3	3	1	2	2	3	2

40	3	3	4	4	2	1	3	2	1	2	3	2
41	2	3	3	3	1	2	3	2	1	2	2	1
42	2	3	3	4	2	1	3	4	1	1	3	1
43	2	3	3	4	2	2	3	2	1	2	3	1
44	2	3	3	3	3	3	4	3	1	2	3	1
45	3	3	3	4	2	3	3	2	2	3	3	2
46	2	3	3	4	2	1	4	3	3	3	3	1
47	2	3	3	4	1	3	3	2	1	2	3	2
48	2	3	3	4	3	3	3	3	3	3	4	3
49	2	3	3	4	3	3	3	2	2	3	4	2
50	2	3	3	4	3	2	3	1	1	2	3	1
51	2	3	3	4	3	2	3	2	2	2	3	2
52	2	2	3	4	3	3	3	1	1	1	2	2
53	2	3	3	4	3	2	3	1	1	2	3	2
54	2	2	3	4	4	1	3	2	1	2	3	2
55	2	3	3	3	1	2	4	3	2	3	3	2
56	2	2	3	3	1	1	3	2	1	2	3	1
57	2	3	3	4	1	2	4	1	2	3	2	1
58	1	2	2	4	2	3	3	3	2	2	4	1
59	2	3	4	4	1	3	4	3	1	2	3	2
60	2	3	3	4	3	3	3	2	1	2	3	1
61	2	3	3	4	3	1	3	1	2	3	2	1
62	2	3	3	4	3	1	3	2	1	1	3	1
63	2	3	3	4	3	2	3	1	1	1	3	1
64	2	3	4	4	2	3	4	3	2	2	3	2
65	2	2	3	4	2	2	3	1	1	1	3	1
66	2	3	3	4	3	3	3	1	3	3	4	3
67	3	3	4	4	3	3	4	4	2	3	3	2
68	1	2	2	3	2	3	3	1	1	1	2	1
69	2	3	3	4	2	2	4	2	1	2	1	1

70	2	2	3	4	1	3	3	2	1	1	3	1
71	2	3	3	4	3	1	3	1	1	1	2	1
72	2	3	3	4	2	3	3	1	1	2	2	1
73	2	2	3	4	1	1	3	2	1	2	3	1
74	3	4	3	4	3	1	3	2	1	2	2	2
75	1	2	3	3	2	2	3	1	1	1	3	1
76	2	2	3	4	1	1	3	2	1	1	2	1
77	3	3	4	4	3	2	3	3	1	2	2	2
78	2	3	3	4	3	1	3	2	1	2	2	1
79	2	2	3	4	1	1	3	2	1	3	2	2
80	2	3	3	4	1	1	3	2	2	2	2	2
81	2	3	3	3	3	3	3	1	1	2	3	2
82	2	3	3	4	3	1	3	3	1	2	3	2
83	3	3	3	4	3	1	3	3	1	2	1	2
84	3	3	4	4	3	3	4	3	2	3	3	3
85	2	3	3	4	2	1	3	3	2	3	3	3
86	1	3	3	4	2	3	3	2	1	2	3	2
87	2	3	3	4	3	3	3	2	2	3	4	2
88	2	3	3	4	3	2	3	4	2	3	2	2
89	2	3	3	3	3	3	3	2	1	2	3	2
90	2	3	3	4	3	3	3	1	2	2	3	2
91	2	2	3	4	3	1	3	3	3	3	4	3
92	2	3	3	4	3	3	3	2	1	2	3	2
93	2	3	3	4	3	3	4	3	3	3	3	3
94	2	3	3	4	2	3	3	1	2	2	3	2
95	2	2	3	4	3	2	3	2	1	3	3	2
96	2	3	2	4	1	3	3	2	2	2	3	2
97	3	3	4	4	3	2	3	3	1	2	3	2
98	2	3	3	4	1	2	3	3	2	3	3	2
99	2	2	3	3	1	3	3	1	1	1	3	2

100	3	3	3	4	3	2	4	2	3	3	3	4
101	2	3	3	4	3	2	4	2	1	2	3	2
102	3	3	4	4	3	3	3	3	3	3	3	4
103	1	3	3	4	2	3	3	2	1	2	3	2
104	2	3	4	4	2	1	3	2	2	3	3	2
105	1	2	3	3	3	3	3	2	1	1	2	1
106	2	3	3	4	3	2	3	2	2	2	3	2
107	2	3	3	4	3	1	3	3	2	2	3	2
108	2	3	3	4	2	1	3	2	1	3	3	3
109	2	3	4	4	2	3	4	3	1	1	3	2
110	3	3	4	4	3	2	4	3	2	2	3	2
111	2	3	3	4	3	2	3	3	1	1	2	1
112	2	3	4	4	3	2	4	3	3	4	3	3
113	2	3	3	4	3	2	4	3	3	4	3	3
114	2	3	4	4	3	3	3	2	2	3	3	3
115	2	2	3	3	1	2	4	2	1	2	3	1
116	1	2	3	3	3	2	4	2	1	2	3	2
117	2	3	3	4	2	3	4	3	2	3	3	3
118	2	3	3	3	3	2	4	3	1	2	3	2
119	2	3	3	4	2	2	3	2	2	3	3	3
120	2	3	3	4	3	3	3	2	2	3	3	2
121	3	3	3	4	3	1	4	3	1	2	3	1
122	1	3	2	3	1	2	3	1	2	1	2	2
123	2	3	3	4	2	2	3	3	2	3	2	3
124	2	2	3	3	2	3	3	2	2	2	3	2
125	2	3	4	3	3	2	3	3	2	3	3	2
126	2	3	3	4	1	2	3	3	1	2	3	1
127	2	3	3	4	2	3	3	3	2	2	3	1
128	3	3	3	4	3	2	4	3	3	3	2	3
129	2	2	3	3	1	2	3	2	1	1	2	1

130	3	3	3	4	3	2	3	3	3	3	3	2
131	2	3	3	4	3	2	3	3	2	3	3	3
132	2	3	3	4	3	3	3	2	1	1	3	2
133	2	3	3	4	1	2	3	2	1	1	2	1
134	2	3	4	4	1	2	4	2	2	2	3	2
135	1	3	2	4	1	3	4	3	2	2	3	2
136	2	3	3	4	4	3	4	3	2	3	2	2
137	2	2	3	3	1	1	3	2	1	1	2	1
138	2	3	4	4	4	2	4	4	3	3	3	3
139	1	2	3	3	1	1	3	2	1	2	3	2
140	2	2	4	3	2	3	4	1	1	1	2	1
141	3	3	3	4	3	4	3	2	4	4	4	4
142	4	2	2	2	1	3	3	2	4	3	1	2
143	3	3	3	4	2	3	3	2	3	4	2	3
144	2	2	3	4	2	2	4	3	3	4	2	1
145	2	3	3	3	2	1	4	3	1	1	2	1
146	2	3	3	4	2	2	4	2	3	3	3	3
147	2	2	3	3	4	3	4	3	2	2	3	2
148	2	2	3	3	1	1	3	1	1	2	1	1
149	2	2	3	4	3	2	3	2	3	3	3	3
150	2	2	3	3	2	4	3	2	2	2	3	2
151	1	2	3	4	2	2	4	3	3	4	3	3
152	2	3	3	4	3	2	4	3	2	2	2	1
153	2	2	3	3	3	2	3	2	2	2	2	2
154	2	2	3	3	2	3	3	2	2	2	3	2
155	2	3	3	4	3	2	4	2	2	3	2	3
156	3	3	3	4	2	2	4	3	3	3	3	3
157	2	3	3	3	2	3	3	2	1	3	3	2
158	2	3	3	4	3	3	4	2	3	3	3	3
159	2	3	3	4	2	2	4	2	2	2	3	2

160	3	4	3	4	3	3	4	3	3	4	3	3
161	3	3	3	3	3	2	4	3	2	2	2	2
162	2	2	1	2	2	2	3	1	2	2	1	2
163	2	3	3	4	3	2	4	2	2	2	1	1
164	2	3	3	3	3	2	4	3	2	2	3	1
165	3	3	3	4	3	3	4	3	3	4	4	3
166	1	2	2	3	3	2	4	2	2	3	2	2
167	3	3	3	4	3	3	4	2	3	4	3	3
168	2	3	3	4	3	3	4	2	3	4	3	3
169	2	2	3	4	3	3	4	3	4	4	3	2
170	3	3	3	4	2	3	4	4	3	4	3	2
171	3	3	3	4	3	3	4	4	3	3	3	3
172	1	2	3	4	3	3	3	2	2	3	3	3
173	3	4	4	4	3	2	4	3	2	3	3	2
174	2	3	3	4	2	1	4	2	2	3	3	2
175	3	3	3	4	3	1	3	2	1	2	3	3
176	2	3	3	4	2	2	3	2	1	2	3	2
177	2	3	3	4	2	2	3	2	1	2	3	2
178	2	3	4	4	3	3	4	1	2	2	3	2
179	3	3	4	4	2	1	3	2	1	3	3	2
180	2	3	3	3	2	2	3	2	1	2	2	1
181	2	3	3	4	2	1	3	2	1	1	3	1
182	2	3	3	4	2	2	3	2	1	2	2	1
183	2	3	3	4	3	3	4	3	1	2	3	1
184	3	3	3	3	2	3	3	2	2	3	3	2
185	2	3	3	4	2	1	4	3	3	3	3	1
186	2	3	3	3	1	2	3	2	1	2	3	2
187	2	3	3	4	3	3	3	3	3	3	4	2
188	2	3	3	4	2	3	3	2	2	3	4	2
189	2	3	3	4	3	2	3	1	1	2	3	1

190	2	3	3	4	3	2	3	2	2	2	3	2
191	2	2	3	4	3	3	3	1	1	2	2	2
192	2	3	3	4	3	2	3	2	1	2	3	2
193	2	3	3	4	4	1	3	2	1	2	3	2
194	2	3	3	3	1	2	4	3	2	3	3	3
195	2	2	3	3	1	2	3	2	1	2	3	1
196	2	3	3	4	1	2	4	1	2	3	2	2
197	1	2	2	4	2	3	3	2	2	2	4	1
198	2	3	3	4	1	3	4	3	1	2	3	2
199	2	3	3	4	3	3	3	2	1	2	3	1
200	1	2	3	4	3	1	3	1	2	3	2	1
201	2	3	3	3	3	1	3	2	1	2	3	1
202	2	3	3	4	3	2	3	1	2	2	3	1
203	2	3	4	4	2	3	4	3	2	2	3	2
204	2	2	3	3	2	2	3	1	1	1	3	1
205	2	3	3	4	3	3	3	2	3	3	4	3
206	3	4	4	4	3	3	4	4	2	3	3	2
207	1	2	2	3	2	3	3	1	1	1	2	1
208	2	3	3	4	2	1	4	2	1	2	1	1
209	2	3	3	4	1	3	3	2	1	1	3	1
210	2	3	3	4	3	1	4	1	1	1	2	1
211	2	3	3	4	2	3	3	1	1	2	2	1
212	2	2	3	4	1	1	3	2	1	2	2	1
213	3	4	3	4	3	1	3	2	1	2	3	2
214	2	2	3	4	2	2	3	1	1	1	3	1
215	2	2	3	3	1	1	3	2	1	2	2	1
216	3	3	4	4	3	2	3	3	1	2	3	2
217	2	3	3	3	3	1	3	2	1	2	2	1
218	2	2	3	4	1	3	3	2	1	3	2	2
219	2	3	3	4	1	1	3	2	2	2	2	2

220	2	3	3	3	3	3	3	2	1	2	3	2
221	2	3	3	4	3	1	4	3	1	2	3	2
222	3	3	3	4	3	1	3	3	1	2	1	2
223	3	3	4	4	3	3	4	3	2	3	3	3
224	1	3	3	4	2	1	3	3	2	2	3	2
225	1	3	3	4	2	2	3	2	1	2	3	2
226	2	3	3	4	1	3	3	2	2	3	4	2
227	2	3	3	4	3	2	3	4	2	3	2	2
228	2	3	3	3	3	3	3	2	1	2	3	2
229	2	3	3	4	3	3	3	1	1	1	3	1
230	2	2	3	4	3	1	3	3	3	3	4	3
231	2	3	3	4	3	1	3	2	1	2	3	2
232	2	3	3	4	3	3	4	3	3	3	3	3
233	2	3	4	4	2	3	3	1	2	2	3	2
234	2	2	3	4	3	2	3	2	1	3	3	3
235	2	2	2	4	1	3	3	2	2	2	3	2
236	3	3	4	4	3	2	3	3	1	2	3	2
237	1	2	3	4	1	2	3	3	2	3	3	2
238	2	2	3	3	1	3	3	1	1	1	3	2
239	2	3	3	4	3	2	4	2	3	3	3	4
240	2	3	3	4	3	2	4	2	1	2	3	2
241	3	3	4	4	3	3	3	3	3	3	4	4
242	1	3	3	4	2	3	3	2	1	2	4	2
243	2	3	3	4	2	1	3	2	2	2	1	2
244	1	2	3	3	3	3	3	2	1	1	2	1
245	2	2	3	3	3	2	3	2	2	2	3	2
246	2	3	3	4	3	1	3	3	1	1	3	1
247	2	2	3	3	2	1	3	2	1	3	3	3
248	2	3	4	4	2	3	4	3	1	1	3	2
249	1	2	3	3	3	1	3	2	1	2	3	2

250	2	3	3	4	3	2	3	3	1	1	2	1
251	2	3	4	4	3	2	4	3	3	4	3	3
252	2	3	3	4	3	2	4	3	3	4	3	3
253	1	2	2	3	2	2	3	1	1	3	3	3
254	2	2	3	3	1	2	4	2	1	2	3	1
255	1	2	3	4	3	2	4	2	1	2	3	2
256	2	3	3	4	2	3	4	2	2	3	3	3
257	2	3	3	3	3	2	4	3	1	2	3	2
258	2	3	3	4	2	2	3	2	2	3	3	3
259	2	2	3	4	3	3	3	2	2	2	3	2
260	3	3	3	4	3	1	4	3	1	2	3	1
261	1	2	2	3	1	2	4	1	2	1	2	2
262	2	3	3	4	2	2	3	3	2	3	2	3
263	2	2	3	3	2	3	3	1	2	2	3	2
264	2	3	4	3	3	2	3	3	2	3	3	2
265	2	3	3	4	1	2	3	3	1	2	3	2
266	2	3	3	4	2	3	3	3	2	2	3	1
267	3	3	4	4	3	2	4	3	3	3	2	3
268	2	2	3	3	1	2	3	2	1	1	2	1
269	3	3	3	4	3	2	4	3	3	3	3	2
270	1	2	3	4	3	2	3	3	2	3	3	3
271	2	2	3	3	3	3	3	2	2	2	3	2
272	2	3	3	4	1	2	3	2	1	1	2	1
273	2	3	4	4	1	2	4	2	2	2	3	2
274	1	3	2	4	1	3	4	3	2	2	3	2
275	2	3	3	4	4	3	4	3	2	3	3	2
276	2	2	3	3	1	1	3	2	1	1	2	1
277	2	3	4	4	4	2	4	4	3	3	3	3
278	1	2	3	3	1	1	3	2	1	2	3	2
279	1	2	3	4	2	2	4	2	1	1	3	2

280	2	3	3	4	2	2	3	2	1	1	3	1
281	1	2	3	4	2	2	4	2	2	2	4	2
282	2	2	3	4	2	1	4	2	2	2	4	2
283	3	3	3	4	3	1	3	2	1	1	3	1
284	3	4	4	4	4	1	4	3	2	3	3	3
285	3	3	3	4	2	1	3	3	1	2	4	2
286	2	3	3	4	1	1	3	2	1	1	3	1
287	3	3	3	4	2	2	4	3	3	3	3	3
288	1	2	3	3	1	1	4	2	2	2	3	2
289	2	2	3	4	3	1	4	2	1	2	3	2
290	1	2	3	4	3	2	4	2	2	3	4	3
291	3	3	4	4	3	1	4	3	3	3	3	2
292	1	2	3	4	2	2	3	2	2	2	3	2
293	2	2	3	3	2	2	4	2	1	2	3	2
294	2	2	3	4	2	2	3	2	1	1	3	1
295	1	2	3	4	2	2	4	2	2	2	4	2
296	2	2	3	3	2	1	4	2	2	2	4	2
297	3	3	3	4	3	1	3	2	1	2	3	2
298	3	4	4	4	4	2	4	3	2	3	3	3
299	2	3	3	4	2	1	3	3	1	2	4	2
300	1	2	3	4	1	1	3	2	1	1	3	1
301	3	3	3	4	2	3	4	3	3	3	3	3
302	1	2	3	3	1	3	3	2	2	2	3	2
303	2	3	3	4	3	1	4	2	1	2	3	2
304	1	3	3	4	3	2	4	2	2	3	4	3
305	3	3	4	3	3	1	3	3	3	3	3	2
306	1	2	3	4	3	3	3	2	2	3	3	3
307	1	2	3	4	3	2	3	2	2	2	3	2

		SECTION -C: QUESTIONNAIRE TO ASSESS SOCIAL DIFFICULTIES AMONG CANCER PATIENTS SOCIAL DIFFICULTIES INVENTORY (SDI-21)																			
PT_ID	ITEM SD_1	ITEM SD_2	ITEM SD_3	ITEM SD_4	ITEM SD_5	ITEM SD_6	ITEM SD_7	ITEM SD_8	ITEM SD_9	ITEM SD_10	ITEM SD_11	ITEM SD_12	ITEM SD_13	ITEM SD_14	ITEM SD_15	ITEM SD_16	ITEM SD_17	ITEM SD_18	ITEM SD_19	ITEM SD_20	ITEM SD_21
1	1	3	2	3	1	2	2	1	3	2	0	0	0	0	1	2	0	0	1	1	1
2	0	0	0	0	1	0	1	0	1	1	0	1	2	2	1	1	0	1	0	0	1
3	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1
4	0	0	0	1	1	1	0	0	1	1	0	0	1	1	0	2	0	0	0	1	1
5	1	3	2	3	1	1	1	1	2	1	2	1	0	0	1	3	2	0	2	1	0
6	0	1	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0
7	1	1	1	2	1	1	1	1	2	3	1	1	0	2	1	2	1	1	2	1	2
8	1	1	1	2	0	1	1	1	2	2	1	2	1	1	2	2	1	0	1	1	0
9	1	1	1	0	0	1	0	0	2	0	1	1	0	0	1	2	0	0	1	1	0
10	1	0	1	1	0	1	2	2	0	2	1	2	1	1	2	2	0	1	1	0	1
11	1	1	1	1	0	1	0	1	0	1	0	0	2	2	1	2	0	0	1	0	0
12	1	2	2	3	1	1	2	1	2	1	1	2	1	1	2	3	1	1	2	2	2
13	0	1	1	1	1	2	2	2	1	2	1	2	1	1	3	2	1	0	1	0	1
14	0	0	1	1	0	1	0	1	1	0	0	1	0	0	1	1	0	0	1	0	1
15	1	0	0	1	0	1	1	1	0	1	0	0	1	1	1	0	0	0	0	0	0
16	0	1	1	1	0	1	1	1	0	1	1	2	0	1	2	1	0	0	0	0	0
17	1	1	1	1	1	1	1	1	1	2	2	2	1	1	2	2	1	2	1	1	1
18	1	2	2	2	1	1	1	1	1	1	1	1	1	1	0	2	1	1	1	1	1
19	1	2	2	2	1	1	1	1	1	2	2	2	1	1	1	2	0	2	2	0	1
20	0	1	1	2	0	1	1	1	2	1	0	0	0	0	0	1	0	0	1	0	0
21	1	2	2	2	1	1	1	1	0	2	3	3	1	1	3	3	1	1	2	1	1
22	0	1	1	2	0	1	1	1	0	1	1	1	0	0	2	2	0	0	1	1	0
23	0	1	1	2	0	0	1	1	0	0	0	0	0	0	1	1	0	0	1	1	0
24	0	0	0	1	0	1	1	1	0	0	0	1	0	0	1	1	0	0	0	0	0

25	0	2	1	2	0	1	2	1	1	1	2	2	0	1	2	2	1	0	1	1	0
26	1	2	2	3	1	2	2	2	1	1	1	1	1	1	2	3	2	1	3	1	1
27	0	1	1	2	0	1	0	0	1	1	3	3	1	0	1	2	2	0	2	1	0
28	1	3	2	2	1	1	2	2	1	1	2	3	1	1	2	3	2	1	3	3	1
29	1	3	3	3	1	1	1	1	2	1	1	1	1	1	2	3	2	0	3	3	2
30	1	3	3	3	1	1	1	1	2	2	2	2	2	2	1	3	2	1	2	2	2
31	1	2	2	3	2	1	1	1	1	2	3	2	1	1	1	3	2	0	2	1	1
32	1	1	1	2	1	1	1	1	1	2	2	2	1	2	2	3	1	1	1	1	1
33	1	2	2	3	0	3	3	3	1	1	1	2	1	0	2	2	1	2	2	1	1
34	1	1	2	1	1	1	2	1	1	1	0	1	0	0	2	1	3	0	2	1	1
35	1	1	2	1	0	2	3	3	0	1	0	1	0	0	1	2	0	1	1	1	1
36	1	2	2	2	1	2	3	2	2	2	0	1	0	0	2	1	0	1	2	2	1
37	2	0	1	3	0	2	3	3	2	2	0	1	0	0	2	1	0	0	2	1	1
38	2	2	3	2	1	2	3	2	1	1	0	1	0	0	2	3	1	1	2	1	1
39	1	1	2	2	0	2	2	2	1	0	0	0	1	1	3	1	1	0	2	1	1
40	2	1	1	2	0	2	3	2	1	1	0	0	0	0	1	2	1	1	2	0	1
41	1	0	1	2	0	3	3	3	2	2	0	1	1	2	1	1	2	0	2	2	1
42	1	0	1	0	0	2	3	2	2	0	0	0	0	0	1	1	1	0	2	1	0
43	1	2	2	3	0	2	3	2	1	1	0	1	0	0	1	2	0	1	2	1	1
44	1	2	3	3	1	2	3	3	1	1	0	1	1	0	1	1	0	0	2	1	1
45	1	1	2	2	0	2	3	1	2	2	0	1	1	1	1	1	0	1	1	2	1
46	1	1	2	1	0	2	3	1	2	2	0	1	1	2	1	1	0	1	2	2	1
47	2	0	1	2	1	2	3	2	1	2	0	1	1	2	0	2	1	0	2	1	2
48	1	2	2	2	1	2	3	3	1	2	1	2	2	2	3	2	1	1	2	1	2
49	1	2	2	2	0	2	2	2	1	2	0	1	3	3	2	1	0	1	2	1	1
50	0	1	2	3	0	1	2	2	1	1	0	1	1	0	2	1	0	1	2	1	0
51	2	1	2	2	1	2	2	2	1	1	0	0	0	0	2	3	1	1	2	1	1
52	1	1	2	3	0	2	2	2	1	1	0	1	1	1	2	1	1	0	2	2	1
53	1	1	2	3	0	1	2	1	2	2	0	1	0	0	2	1	0	0	2	2	1
54	2	1	2	3	0	1	2	2	2	2	0	1	0	0	3	2	0	1	2	2	1

55	1	2	2	3	0	1	2	2	0	2	0	1	0	0	1	2	1	0	2	0	1
56	0	0	1	2	0	2	2	2	3	2	0	1	0	0	1	1	0	0	2	1	1
57	0	1	2	2	0	2	3	2	1	2	1	2	0	0	1	1	2	1	2	0	0
58	1	1	2	2	0	2	2	2	1	1	0	1	2	2	1	1	0	1	2	0	2
59	2	0	1	2	1	2	3	3	1	2	0	1	1	0	1	1	2	0	2	1	1
60	1	1	2	3	1	3	3	3	1	2	0	0	1	0	1	1	0	0	1	1	1
61	1	1	2	1	1	2	2	3	0	0	1	2	0	0	1	1	2	1	1	0	1
62	0	2	2	2	0	2	3	2	1	1	0	0	0	0	2	1	1	0	2	0	1
63	0	1	2	3	0	2	2	2	0	1	0	0	1	0	2	1	0	0	2	0	0
64	1	1	2	2	1	1	1	1	2	2	2	0	1	0	1	2	1	0	1	1	0
65	0	0	1	2	0	2	3	2	2	2	0	0	0	0	1	0	1	0	2	2	2
66	1	2	2	2	1	2	3	2	2	1	1	2	1	2	2	2	1	1	3	1	1
67	1	1	2	1	0	2	3	2	0	1	1	1	0	1	2	1	2	0	2	0	1
68	0	1	1	2	0	1	1	1	2	2	0	0	1	1	2	0	1	0	2	1	0
69	0	1	2	2	0	2	3	3	1	1	0	1	0	1	1	2	1	0	2	0	1
70	0	1	1	2	0	2	2	2	1	1	0	0	1	1	0	0	1	0	2	0	0
71	1	0	1	1	0	2	2	2	1	1	0	0	0	2	1	1	1	0	2	2	1
72	0	1	2	2	0	2	3	2	1	1	0	1	0	0	1	1	2	0	1	1	0
73	1	1	2	2	0	2	2	2	1	2	0	0	0	0	1	1	1	0	2	1	1
74	1	0	1	2	0	1	2	1	1	1	0	1	0	0	2	1	2	0	3	1	0
75	0	1	1	2	0	2	3	2	1	1	0	0	1	1	2	1	1	0	2	0	0
76	1	1	2	2	1	2	2	2	3	2	0	0	0	0	1	1	1	0	2	2	1
77	0	0	1	1	1	2	3	2	1	1	0	1	0	0	2	1	2	0	2	0	1
78	1	0	1	1	0	2	2	2	1	1	0	1	0	0	1	1	1	0	1	0	0
79	1	0	1	2	0	2	3	2	1	1	0	1	0	0	1	1	2	0	1	1	0
80	1	0	0	0	0	2	3	2	2	0	1	1	0	0	1	1	1	0	2	1	0
81	0	1	2	2	0	1	2	2	1	1	0	0	1	0	2	1	0	0	2	1	1
82	1	2	2	3	1	1	2	2	2	2	0	1	1	2	2	2	0	1	2	2	1
83	1	1	2	1	0	2	3	2	1	1	0	1	0	0	1	1	1	0	2	1	1
84	1	2	2	3	1	1	2	2	3	2	1	2	1	0	2	2	1	1	2	1	1

85	2	2	2	0	0	1	2	2	3	1	1	1	0	2	1	2	1	1	2	1	1
86	1	2	2	3	1	2	3	2	2	1	0	1	1	1	2	2	2	1	2	1	1
87	2	1	1	2	1	1	2	2	2	2	2	2	3	3	1	3	1	1	2	1	1
88	1	1	2	2	0	1	1	1	2	2	0	1	0	0	1	2	0	1	2	1	1
89	2	2	1	2	0	1	1	1	2	2	0	1	1	2	1	1	1	0	2	2	1
90	1	2	2	2	0	0	1	1	3	2	0	0	1	2	2	1	0	0	2	2	0
91	2	1	1	1	1	1	1	1	2	2	1	2	0	0	2	2	1	1	2	1	2
92	1	1	2	2	1	1	2	2	2	2	0	1	0	0	2	2	2	1	2	1	1
93	1	2	2	2	0	1	2	2	2	2	1	2	0	0	2	2	0	1	3	2	1
94	1	1	2	1	0	1	3	2	2	2	0	1	1	1	1	2	0	1	1	2	1
95	2	1	1	2	0	2	3	2	2	2	0	1	0	0	2	2	1	0	2	1	1
96	1	0	0	2	0	1	3	1	3	2	0	0	1	0	1	1	1	0	2	2	1
97	2	1	1	2	0	2	3	2	1	1	1	1	0	0	2	2	1	1	2	0	1
98	2	2	2	2	1	2	3	2	1	1	0	1	0	0	1	2	2	1	2	1	1
99	1	0	0	2	0	1	2	2	2	3	0	0	1	1	0	1	1	0	2	1	1
100	1	2	2	2	1	1	2	2	1	2	1	2	0	0	1	2	2	1	1	1	1
101	0	1	2	2	1	1	3	2	2	1	0	1	0	0	2	1	1	1	2	0	1
102	1	1	2	2	0	1	2	1	2	3	0	1	1	1	0	1	1	0	2	1	1
103	1	1	1	2	0	1	2	1	2	2	0	0	2	2	1	1	0	1	1	1	1
104	1	2	2	2	1	1	2	2	1	0	0	1	0	1	1	2	1	1	1	2	1
105	0	1	1	1	0	0	0	0	2	2	0	0	1	1	1	1	0	0	1	0	0
106	1	0	0	1	1	1	1	1	2	1	0	0	1	1	2	2	0	1	2	1	1
107	1	1	2	2	0	1	2	2	1	1	0	1	0	0	2	1	1	0	2	0	1
108	1	1	1	2	1	2	3	2	1	2	0	1	1	1	1	1	0	1	2	2	0
109	2	1	1	3	0	1	1	2	2	2	0	0	1	0	1	2	1	1	2	1	1
110	2	2	2	3	1	0	1	1	2	2	1	1	0	0	2	2	1	1	2	1	1
111	1	2	1	1	0	0	1	1	1	1	0	0	0	0	1	1	0	0	2	1	1
112	1	2	2	1	2	2	3	2	2	1	1	1	0	0	2	2	0	1	1	2	1
113	1	1	2	2	1	1	2	2	3	1	1	2	0	0	1	2	0	1	1	1	2
114	2	1	2	2	0	2	3	3	2	2	0	1	1	0	2	1	1	1	1	1	2

115	1	1	2	3	0	3	3	3	2	2	0	1	0	0	1	1	1	1	2	1	2
116	1	1	2	2	1	1	1	1	2	2	0	0	0	1	1	1	1	0	2	1	1
117	1	1	1	2	0	1	1	1	2	3	0	1	1	0	1	1	0	1	2	1	1
118	1	0	1	2	1	0	1	1	2	3	0	1	0	0	1	1	0	1	2	1	1
119	1	1	2	2	0	1	2	2	2	2	2	2	1	0	1	1	0	1	2	2	1
120	1	1	2	2	0	2	3	2	1	1	0	1	1	0	2	2	0	1	2	1	0
121	1	1	2	2	0	2	3	3	0	1	0	1	0	0	2	1	0	1	2	1	1
122	0	1	1	0	0	1	1	1	1	0	0	0	0	1	1	0	0	0	1	0	0
123	1	1	1	1	0	1	1	1	2	2	2	2	1	0	1	1	0	1	2	0	1
124	1	2	1	2	0	1	2	1	2	2	0	1	2	1	1	1	0	0	1	1	0
125	1	1	2	2	1	1	2	2	2	0	1	1	0	0	1	2	0	1	2	1	1
126	1	1	2	2	0	2	3	2	0	1	0	1	0	0	1	1	0	0	1	1	0
127	1	1	2	2	1	1	2	2	1	1	1	1	1	1	1	1	0	1	2	1	2
128	1	2	2	1	0	1	1	1	2	1	1	1	0	0	2	2	1	1	2	1	1
129	0	0	0	1	1	1	1	1	2	1	1	0	1	1	2	0	0	0	1	0	0
130	1	1	2	1	1	1	2	2	1	2	1	1	0	0	2	3	0	1	2	2	1
131	2	2	2	2	1	1	2	2	3	2	1	2	0	0	2	1	0	1	2	1	1
132	0	1	1	2	0	1	2	2	1	1	0	0	1	0	2	1	0	0	2	1	0
133	1	1	2	1	0	2	3	3	3	1	0	0	0	1	0	2	0	1	2	0	0
134	0	1	1	2	0	1	1	1	1	0	0	0	0	0	1	1	0	0	1	0	0
135	1	2	2	2	1	1	1	1	2	1	2	2	0	1	2	2	0	1	1	1	1
136	1	2	2	3	1	1	1	1	2	1	2	2	1	0	3	3	1	1	2	2	2
137	1	1	1	2	0	1	1	1	2	2	0	1	0	0	0	1	0	0	1	0	1
138	1	2	2	1	1	1	2	2	3	3	1	2	2	3	2	3	2	1	2	1	2
139	1	1	1	1	0	1	1	1	2	1	0	0	0	0	1	1	0	0	1	1	1
140	1	2	2	2	1	2	3	1	3	2	0	1	0	0	1	2	0	0	2	1	1
141	0	0	0	1	1	0	1	0	1	1	0	1	2	3	1	1	0	1	1	0	1
142	0	1	1	1	0	2	2	2	0	0	0	0	0	0	1	1	1	1	1	0	1
143	0	0	0	1	1	1	2	1	1	1	0	0	1	1	0	2	0	0	1	1	1
144	1	3	2	3	1	1	2	2	2	1	2	1	0	0	1	3	2	0	2	1	0

145	0	1	1	2	0	0	0	0	0	1	0	0	0	0	3	0	1	0	1	1	0
146	1	1	1	2	1	1	2	1	3	3	1	1	0	2	1	2	1	1	2	1	2
147	1	1	2	2	0	1	1	1	2	2	1	2	1	1	2	2	1	0	1	1	0
148	1	1	1	0	0	1	2	3	2	0	1	1	0	0	1	2	0	0	1	1	0
149	1	0	1	2	0	1	2	2	2	2	1	2	1	1	2	2	0	1	1	0	1
150	1	1	1	2	0	1	0	1	0	1	0	0	2	2	1	2	0	0	1	0	0
151	1	2	2	3	1	1	2	1	1	1	1	2	0	0	2	3	1	1	2	2	2
152	0	1	2	1	1	2	3	2	1	2	1	2	1	1	3	2	1	0	1	0	1
153	0	0	1	1	0	1	1	1	1	0	0	1	0	0	1	1	0	0	1	0	1
154	1	0	0	1	0	1	1	1	0	1	0	0	1	1	1	0	0	0	2	0	1
155	0	1	1	1	0	1	2	1	0	1	1	2	0	1	2	1	0	0	0	0	0
156	1	1	1	0	1	1	1	1	1	2	2	2	1	1	2	2	1	2	1	1	1
157	1	2	2	2	1	2	2	2	1	1	1	1	1	1	0	2	1	1	1	1	1
158	1	2	2	2	1	2	3	2	1	2	2	2	1	1	1	2	0	2	2	0	1
159	0	1	1	2	0	1	1	1	2	1	0	0	0	0	0	1	0	0	1	1	1
160	1	1	2	2	1	1	2	1	0	2	3	3	1	1	3	3	1	1	2	1	1
161	0	0	1	2	0	1	1	1	0	1	1	1	0	0	2	2	0	0	1	1	0
162	0	1	1	2	0	0	1	1	2	1	0	0	0	0	1	1	0	0	1	1	0
163	0	0	0	1	0	1	1	1	1	0	0	1	0	0	1	1	0	0	1	0	0
164	0	1	1	2	0	1	2	1	1	1	2	2	0	1	2	2	1	0	1	1	0
165	1	2	2	3	1	2	3	2	1	1	1	1	1	1	2	3	2	1	3	1	1
166	0	1	1	2	0	1	3	2	1	1	3	3	1	0	1	2	2	0	2	1	0
167	1	3	2	2	1	3	3	3	1	1	2	3	1	1	2	3	2	1	3	3	1
168	1	3	3	3	1	1	2	1	2	2	1	1	1	1	2	3	2	0	3	3	2
169	1	1	1	2	1	1	1	1	2	2	2	2	2	2	1	3	2	1	2	2	2
170	1	1	2	3	2	1	2	1	1	2	3	2	1	1	1	2	2	0	2	1	1
171	1	1	1	2	1	1	2	2	1	2	2	2	1	2	2	3	1	1	1	1	2
172	1	2	2	3	0	2	3	2	1	1	1	2	1	0	2	2	1	2	2	1	1
173	1	0	2	1	1	1	2	1	1	1	0	1	0	0	2	1	3	0	2	1	1
174	1	1	3	1	0	2	3	3	0	1	0	1	0	0	1	2	0	1	2	1	1

175	0	1	1	2	1	2	3	2	1	2	0	1	0	0	2	1	0	1	2	1	1
176	1	1	1	2	0	2	3	2	2	2	0	1	0	0	2	1	0	0	2	2	1
177	1	2	3	1	1	2	3	2	1	1	0	1	0	0	2	3	1	1	1	1	1
178	0	1	1	2	0	2	2	2	1	0	0	0	1	1	3	1	1	0	1	1	1
179	1	1	1	2	0	2	3	2	1	1	0	0	0	0	1	2	1	1	2	0	1
180	1	0	1	2	0	2	3	3	2	2	0	1	1	2	1	1	1	0	2	1	1
181	1	0	1	0	0	2	3	3	2	0	0	0	0	0	1	1	1	0	2	1	0
182	1	1	2	3	0	2	3	2	1	1	0	1	0	0	1	2	0	1	2	1	1
183	1	1	3	3	1	2	3	3	1	1	0	1	1	1	1	1	0	0	2	1	1
184	1	1	2	2	0	2	3	1	2	2	0	1	1	1	1	2	1	1	1	2	1
185	1	1	1	1	0	2	3	1	2	2	0	1	1	3	1	1	0	1	2	2	1
186	2	1	1	2	1	2	3	2	1	1	0	1	1	2	0	2	1	0	2	1	2
187	1	1	2	2	0	2	3	3	1	2	1	2	2	2	3	2	1	1	2	1	2
188	1	2	2	2	0	1	2	2	1	2	0	1	3	3	2	1	0	1	2	1	1
189	0	1	2	3	0	2	2	2	1	1	0	1	1	0	2	1	0	1	2	1	0
190	0	1	2	2	0	2	2	2	1	1	0	0	0	0	2	3	1	1	2	1	1
191	1	1	1	3	0	1	2	1	1	1	0	1	1	1	2	1	1	0	2	2	1
192	1	1	2	3	0	1	2	1	2	2	0	1	0	0	2	1	0	0	2	2	1
193	2	1	2	3	0	1	1	2	2	2	0	1	0	0	3	2	0	1	1	1	1
194	1	1	2	2	0	1	2	2	0	2	0	1	0	0	1	2	1	0	2	0	1
195	0	0	1	2	0	2	2	2	3	2	0	1	0	0	1	1	0	0	2	1	1
196	0	1	2	2	0	2	3	2	1	2	1	2	0	0	1	1	1	1	2	0	0
197	0	0	1	1	0	2	2	2	1	1	0	1	1	2	1	1	0	1	2	0	2
198	2	1	1	2	1	2	3	3	1	2	0	1	1	0	1	1	2	0	2	1	1
199	1	1	2	3	1	2	3	3	1	2	0	0	1	0	1	1	0	0	1	1	1
200	1	1	2	1	1	2	2	3	0	0	1	2	0	0	1	1	2	1	1	0	1
201	0	1	2	2	0	2	3	2	1	1	0	0	0	0	1	1	1	0	2	0	1
202	0	1	1	3	0	2	2	2	0	1	0	0	1	0	2	1	0	0	2	0	0
203	1	1	2	2	1	1	2	2	2	2	2	0	1	0	1	2	1	0	1	1	0
204	0	1	2	2	0	2	3	2	2	2	0	0	0	0	1	0	1	0	2	2	2

205	2	2	2	2	1	2	3	2	2	1	1	2	1	2	2	2	1	1	3	1	1
206	0	2	2	1	1	2	3	2	0	1	1	1	0	1	2	1	2	0	2	0	1
207	1	1	1	2	0	1	1	1	2	2	0	0	1	1	1	0	1	0	2	1	0
208	0	1	2	2	0	2	3	3	1	1	0	1	0	1	1	2	1	1	2	0	1
209	0	1	1	2	0	2	2	2	1	1	0	0	1	1	0	0	1	0	2	2	0
210	1	0	1	1	0	2	2	2	1	1	0	0	0	2	1	1	1	0	2	2	1
211	0	1	2	2	0	2	3	2	1	1	0	1	0	0	1	1	2	0	1	1	0
212	1	1	2	2	0	2	2	2	1	2	0	0	0	0	1	1	1	0	2	2	2
213	1	0	1	2	0	1	2	1	1	1	0	1	0	0	2	1	2	0	3	1	0
214	0	1	1	2	0	2	3	2	1	1	0	0	1	1	2	1	1	0	2	0	0
215	1	1	2	2	1	1	2	2	3	2	0	0	0	0	1	1	1	0	2	2	1
216	0	1	1	1	1	2	3	2	1	1	0	1	0	0	2	1	2	0	2	0	1
217	1	0	1	1	0	2	2	2	1	1	0	1	0	0	1	1	1	0	2	0	0
218	1	1	1	2	0	2	3	2	1	1	0	1	0	0	1	1	2	0	1	1	0
219	1	0	1	0	0	2	3	2	2	0	1	1	0	0	1	1	1	0	2	1	0
220	0	1	2	2	0	1	2	2	1	1	0	0	1	0	2	1	0	0	2	1	1
221	1	1	2	3	1	1	2	2	2	2	0	1	1	2	2	2	0	1	2	2	1
222	0	1	2	1	0	2	3	2	1	1	0	1	0	0	1	1	1	0	2	1	1
223	1	1	2	3	1	1	2	2	3	2	1	2	1	0	2	2	1	1	2	1	1
224	2	2	2	0	0	1	2	2	3	1	1	1	0	2	1	2	0	1	2	1	1
225	1	1	1	3	1	2	3	2	2	1	0	1	1	1	2	2	2	1	2	1	1
226	2	1	1	2	1	1	2	2	2	2	2	2	3	3	1	3	1	1	2	1	1
227	1	1	2	2	0	1	2	1	2	2	0	1	0	0	1	2	0	1	2	1	1
228	2	2	1	2	0	1	1	2	2	2	0	1	1	2	1	1	1	0	2	2	1
229	1	2	2	2	0	0	1	1	3	2	0	0	1	2	2	1	0	0	2	2	0
230	2	1	2	1	1	1	1	1	2	2	1	2	0	0	2	2	1	1	2	1	2
231	1	1	2	2	1	1	2	2	2	2	0	1	0	0	2	2	2	1	2	1	1
232	1	2	2	2	0	1	2	2	2	2	1	2	0	0	2	2	0	1	3	2	1
233	0	1	2	1	0	1	3	2	2	2	0	1	1	1	1	2	0	1	1	2	1
234	2	1	1	2	0	2	3	2	2	2	0	1	0	0	2	2	1	0	2	1	1

235	0	0	0	2	0	1	3	1	3	2	0	0	1	0	1	1	0	0	2	2	1
236	2	1	1	2	0	2	3	2	1	1	1	1	0	0	2	2	1	1	2	0	1
237	1	1	1	2	1	2	3	2	1	1	0	1	0	0	1	2	2	1	2	1	1
238	1	0	1	2	0	1	2	2	2	3	0	0	1	1	0	1	1	0	2	1	1
239	1	2	2	2	1	1	2	2	1	2	1	2	0	0	1	2	2	1	1	1	1
240	0	1	2	2	1	1	3	2	2	1	0	1	0	0	2	1	1	1	2	0	1
241	1	1	2	2	0	1	2	1	2	3	0	1	1	1	0	1	1	0	2	1	1
242	1	1	1	2	1	1	2	1	2	2	0	0	2	2	1	1	0	1	1	1	1
243	1	2	2	2	1	1	2	2	1	0	0	1	0	1	1	2	1	1	1	2	1
244	0	1	1	1	0	0	0	0	2	2	0	0	1	1	1	1	0	0	1	0	0
245	1	0	0	1	1	1	1	1	2	1	0	0	1	1	2	2	0	1	2	1	0
246	1	1	2	2	0	1	2	2	1	1	0	1	0	0	2	1	1	0	2	0	1
247	1	1	1	2	1	2	3	2	1	2	0	1	1	1	1	1	0	1	2	1	0
248	2	1	1	2	0	1	1	2	2	2	0	0	1	0	1	2	1	1	2	1	1
249	2	2	2	3	1	0	1	1	2	2	1	1	0	0	2	2	1	1	2	1	1
250	1	2	1	0	0	0	1	1	1	1	0	0	0	0	1	1	0	0	2	1	1
251	1	1	1	1	2	2	3	2	2	1	1	1	0	0	2	2	0	1	1	2	1
252	0	1	2	2	1	1	2	2	3	1	1	2	0	0	1	2	0	1	1	1	2
253	2	1	2	2	0	2	3	3	2	2	0	1	1	0	2	1	1	1	1	1	2
254	1	1	2	3	0	3	3	3	2	2	0	1	0	0	1	1	1	1	2	1	1
255	1	1	2	2	1	1	1	1	2	2	0	0	0	1	1	1	1	0	2	1	1
256	1	1	2	2	0	1	1	1	2	3	0	1	1	0	1	1	0	1	2	1	1
257	1	0	1	2	1	0	1	1	2	3	0	1	0	0	1	1	0	1	2	1	1
258	1	1	1	2	0	1	2	2	2	2	2	2	1	0	1	1	0	1	2	2	1
259	1	1	2	2	1	2	3	2	1	1	0	1	1	0	2	2	0	1	2	1	0
260	2	1	2	2	0	2	3	3	0	1	0	1	0	0	2	1	0	1	2	1	1
261	0	1	1	0	0	1	1	1	1	0	0	0	0	1	1	0	0	0	1	0	0
262	1	1	2	1	0	1	1	1	2	2	2	2	1	0	1	1	0	1	2	0	1
263	1	2	1	2	0	1	2	1	2	2	0	1	2	1	1	1	0	0	1	1	0
264	1	1	2	2	1	1	2	2	2	0	1	1	0	0	1	2	0	1	2	1	1

265	1	1	2	2	0	2	3	2	0	1	0	1	0	0	1	1	0	0	1	1	0
266	1	1	2	2	1	1	3	2	1	1	1	1	1	1	1	1	0	1	2	1	2
267	1	2	2	1	0	1	1	1	2	1	1	1	0	0	2	2	1	1	2	1	1
268	3	1	1	1	1	1	1	1	2	1	1	0	1	1	2	0	0	0	1	0	0
269	1	1	3	1	1	1	2	2	1	2	1	1	0	0	2	3	0	1	2	2	1
270	2	2	2	2	1	1	2	2	3	2	1	2	0	0	2	1	0	1	2	1	1
271	0	1	2	2	0	1	2	2	1	1	0	0	1	0	2	1	0	0	2	1	0
272	1	1	2	1	0	2	3	3	3	1	0	0	0	1	0	2	0	1	2	0	0
273	0	1	2	2	0	1	1	1	1	0	0	0	0	0	1	1	0	0	1	0	0
274	1	2	2	2	1	1	1	1	2	1	2	2	0	1	2	2	0	1	1	1	1
275	1	2	2	3	1	1	2	1	2	1	2	2	1	0	3	3	1	1	2	2	2
276	1	1	1	2	0	1	0	1	2	2	0	1	0	0	0	1	0	0	1	0	1
277	1	2	2	1	1	1	3	2	3	3	1	2	2	3	2	3	2	1	2	1	2
278	1	1	2	2	0	1	2	2	2	1	0	0	0	0	1	1	0	0	1	1	1
279	0	0	1	2	0	1	1	1	2	2	0	0	0	1	1	1	2	0	2	2	2
280	0	0	0	2	0	1	2	2	3	2	0	0	0	0	1	1	1	0	2	1	1
281	1	1	1	2	0	2	3	3	2	1	0	1	0	0	3	1	0	1	2	0	1
282	0	1	2	2	0	1	2	2	1	1	0	1	0	0	1	1	0	0	1	0	1
283	1	1	2	1	0	1	2	1	0	1	0	0	0	0	3	1	0	0	3	0	1
284	1	1	2	2	1	2	3	1	1	1	0	1	0	0	3	2	1	1	3	0	1
285	0	1	2	2	0	2	3	2	2	2	0	1	0	0	1	1	1	0	1	1	1
286	0	1	1	2	0	2	3	3	2	2	0	0	0	0	1	1	0	0	1	0	1
287	1	1	2	2	1	2	3	2	1	1	1	2	0	0	1	2	0	1	1	0	1
288	1	1	2	2	0	2	2	2	2	1	0	0	0	2	1	1	0	0	2	2	1
289	0	1	2	2	0	2	3	3	1	1	1	2	0	0	2	2	1	1	2	1	1
290	1	1	2	2	1	2	3	2	2	1	0	1	0	0	3	1	1	1	2	1	1
291	1	1	2	1	1	2	3	3	1	1	1	2	0	0	2	2	1	1	2	0	1
292	0	0	1	1	0	1	1	1	2	1	0	1	0	0	2	0	0	0	2	0	1
293	0	1	1	2	0	1	1	1	2	3	0	0	0	1	1	1	2	0	2	2	2
294	0	0	0	2	0	1	2	2	3	2	0	0	1	0	1	1	1	0	2	3	1

295	2	1	2	2	0	2	3	3	2	1	0	1	0	0	3	1	0	1	2	0	1
296	0	1	2	1	1	1	2	2	1	1	0	1	0	0	2	1	0	1	1	0	2
297	1	1	2	1	0	1	2	1	0	1	0	0	0	0	3	1	0	0	3	0	1
298	1	1	2	2	1	2	3	2	1	1	0	1	0	0	3	2	1	1	3	0	1
299	0	1	2	2	0	2	3	2	1	1	0	1	0	0	1	1	1	0	1	0	1
300	0	1	1	2	0	2	3	3	2	2	0	0	0	0	1	1	0	0	1	2	1
301	2	1	2	2	1	2	3	2	1	1	1	2	0	0	1	2	0	1	1	0	1
302	1	1	2	2	0	2	2	2	2	1	0	0	1	2	1	1	2	0	2	2	1
303	3	1	2	2	2	2	3	3	1	1	1	2	0	0	2	2	1	1	2	1	1
304	1	1	2	2	1	2	3	2	2	1	0	1	0	1	3	2	1	1	2	2	1
305	1	1	2	1	1	2	3	3	1	1	1	2	0	0	2	2	0	1	2	0	1
306	1	2	2	3	0	3	3	3	1	1	1	2	1	0	2	2	1	2	2	1	1
307	0	1	2	3	0	1	1	1	1	1	1	2	1	0	2	1	1	0	2	1	1

			SECTION -D: QUESTIONNAIRE TO ASSESS ANXIETY/DEPRESSION AMONG CANCER PATIENTS HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS)											
PT_ ID	ITEM AN_1	ITEM AN_2	ITEM AN_3	ITEM AN_4	ITEM AN_5	ITEM AN_6	ITEM AN_7	ITEM DEP_1	ITEM DEP_2	ITEM DEP_3	ITEM DEP_4	ITEM DEP_5	ITEM DEP_6	ITEM DEP_7
1	2	2	3	2	3	1	3	1	1	2	2	2	2	1
2	2	1	1	2	1	0	2	0	1	1	2	0	1	1
3	1	1	0	1	1	1	2	1	1	1	1	0	2	1
4	3	1	3	2	1	3	3	1	1	3	3	0	0	3
5	3	2	2	2	2	1	2	1	2	1	3	1	0	3
6	2	0	1	1	0	0	0	0	0	0	1	0	0	1
7	1	2	1	2	1	1	1	1	1	1	1	2	1	1
8	2	2	1	2	2	2	1	2	2	2	2	2	2	2
9	1	2	1	1	1	1	1	1	2	1	3	2	0	1
10	2	1	2	2	1	1	2	1	1	1	2	2	2	2

11	1	1	1	1	1	0	1	1	0	0	1	0	1	0
12	2	2	2	2	1	1	1	2	2	1	2	2	2	1
13	1	2	1	1	1	0	1	1	1	1	1	1	2	1
14	1	1	1	1	1	0	1	0	1	0	1	1	1	0
15	1	1	1	1	1	1	1	1	1	0	1	1	2	0
16	1	1	1	1	0	0	1	1	1	1	1	2	1	1
17	2	2	1	2	1	1	1	2	2	1	2	1	2	1
18	1	2	2	2	1	1	2	2	2	2	1	2	2	2
19	2	2	2	2	1	1	1	2	1	1	3	2	1	2
20	1	1	0	1	1	0	1	1	1	1	1	2	1	0
21	3	3	3	2	1	1	2	1	2	2	3	3	2	2
22	2	1	1	1	1	0	1	1	0	1	1	2	2	1
23	1	1	1	1	0	0	1	1	1	1	1	2	2	1
24	1	1	1	2	1	0	1	1	2	1	1	1	1	2
25	2	0	1	1	1	1	1	2	1	1	1	1	3	2
26	3	2	3	2	1	2	2	3	1	2	3	3	1	3
27	1	1	1	1	1	1	2	1	1	1	1	1	2	1
28	3	2	3	2	1	1	3	2	2	3	3	3	1	3
29	3	3	2	3	1	2	2	1	2	3	3	3	0	3
30	3	2	2	3	1	1	2	1	3	3	2	3	0	3
31	2	2	3	2	1	3	3	3	2	2	3	2	2	3
32	2	2	1	2	1	1	2	2	2	2	3	2	1	1
33	2	2	3	2	2	1	3	2	2	1	3	0	2	2
34	2	1	1	1	1	0	2	2	2	1	3	2	3	2
35	2	2	3	2	1	0	2	2	2	1	2	3	1	1
36	2	2	2	2	2	2	2	1	2	1	3	2	2	1
37	2	1	2	2	1	2	1	2	1	1	1	2	2	3
38	1	2	2	2	0	0	2	2	2	1	2	2	2	3
39	1	1	2	1	0	1	1	2	2	2	1	2	1	1
40	2	1	3	3	1	1	1	2	2	2	3	2	2	3

41	2	1	3	2	1	2	1	1	2	2	1	2	2	1
42	1	1	2	1	1	1	2	2	1	1	2	1	3	1
43	1	2	3	2	1	1	2	1	2	1	2	2	3	3
44	2	2	3	2	1	1	2	2	2	1	3	0	2	1
45	2	2	2	2	1	2	2	2	2	1	2	3	3	3
46	2	3	2	2	1	1	2	2	1	1	3	2	2	3
47	2	1	2	2	0	1	1	1	1	2	2	2	0	2
48	3	2	3	2	1	1	3	2	2	2	3	2	1	2
49	3	2	3	2	2	1	2	2	2	2	2	2	1	3
50	2	2	2	2	1	1	2	2	1	1	2	0	1	1
51	2	1	2	2	1	1	2	2	1	1	3	2	2	1
52	2	1	2	2	1	1	2	1	2	1	1	0	1	1
53	2	1	2	2	1	1	2	1	2	2	1	2	1	3
54	2	2	3	3	1	2	2	2	2	2	3	2	1	2
55	2	2	3	2	2	1	1	1	2	2	1	2	3	2
56	1	2	2	2	1	1	2	1	1	2	2	2	0	1
57	2	2	3	2	1	1	2	1	2	2	3	2	3	3
58	2	3	3	2	1	1	1	2	2	2	3	0	1	1
59	1	1	2	2	0	2	1	2	2	2	2	2	2	3
60	1	1	2	1	2	1	2	2	2	1	2	1	1	1
61	3	2	2	3	1	1	2	2	1	2	3	2	2	2
62	2	2	2	2	1	1	2	1	2	1	2	3	1	3
63	2	2	3	2	1	1	2	1	2	1	2	0	2	3
64	2	1	2	2	1	1	2	2	1	2	3	2	1	2
65	2	1	1	1	0	2	1	1	1	0	1	1	0	1
66	2	1	3	2	1	1	2	2	2	1	3	2	2	1
67	1	2	1	3	1	1	2	3	2	2	2	2	3	2
68	1	2	2	1	0	0	1	1	0	1	2	0	1	1
69	2	2	2	2	1	1	2	1	2	2	1	2	3	1
70	2	2	3	2	1	1	1	2	2	1	2	0	1	1

71	1	1	2	2	1	2	1	1	2	1	2	2	2	1
72	2	2	3	2	2	1	3	1	2	2	3	1	2	3
73	2	1	2	2	0	1	2	2	1	2	1	2	1	1
74	2	2	1	2	1	0	2	1	1	1	1	2	1	1
75	2	2	3	2	1	1	3	1	2	2	2	0	2	1
76	2	2	2	2	1	1	2	2	2	1	3	0	0	1
77	1	2	2	3	1	1	1	2	2	2	2	1	1	2
78	3	1	1	2	1	1	1	2	2	1	3	2	3	1
79	2	2	2	2	1	0	2	2	1	1	3	2	1	1
80	1	2	2	1	0	1	2	2	1	1	2	1	0	1
81	3	3	3	2	1	1	3	2	2	2	2	0	1	3
82	2	1	2	2	1	1	1	2	1	2	2	2	1	2
83	2	1	2	2	1	2	1	2	2	1	3	2	3	1
84	2	2	2	2	1	2	1	2	2	2	1	2	1	1
85	1	1	2	2	1	1	2	1	2	2	2	2	1	1
86	3	2	3	2	1	0	2	1	1	1	3	0	0	1
87	3	1	2	2	0	1	1	1	1	1	3	0	1	1
88	2	2	2	2	1	1	1	2	3	2	1	1	2	2
89	2	2	2	2	1	0	2	1	2	1	2	0	1	1
90	1	2	3	2	1	1	3	1	1	2	2	0	0	1
91	2	2	2	2	1	0	2	3	2	2	3	2	2	2
92	1	2	2	2	1	1	1	1	1	1	2	1	1	1
93	2	1	2	2	1	1	1	1	1	2	2	2	2	2
94	1	1	2	2	1	1	1	2	2	2	1	0	1	1
95	1	1	1	2	0	1	1	2	1	1	2	2	2	1
96	1	2	2	1	0	2	2	1	1	1	2	2	0	1
97	2	1	1	3	1	1	2	2	1	1	3	2	1	1
98	2	2	3	2	1	1	2	2	2	2	3	3	2	1
99	1	1	0	1	1	1	1	1	1	0	2	0	2	1
100	2	2	3	2	2	1	2	2	2	2	3	2	1	2

101	2	2	3	2	1	1	2	3	2	2	3	0	2	1
102	2	1	2	2	1	1	2	2	1	1	3	2	1	1
103	2	1	2	2	1	1	1	2	1	2	1	1	1	1
104	2	1	2	2	1	1	2	1	2	1	2	1	1	1
105	1	1	1	1	1	1	1	0	0	0	1	0	0	0
106	2	1	2	1	0	0	2	1	1	1	1	1	1	2
107	2	2	2	2	2	1	2	2	2	1	3	2	1	3
108	1	1	2	2	1	1	2	1	1	1	2	2	1	1
109	2	2	2	1	1	2	2	1	2	1	2	2	1	1
110	1	1	2	2	1	1	2	2	2	1	2	2	1	2
111	1	1	2	2	1	1	1	1	1	1	1	2	2	1
112	2	1	2	2	1	1	1	1	2	2	1	1	1	1
113	2	2	2	2	1	1	2	1	1	1	3	1	1	1
114	2	2	2	2	2	1	2	1	1	1	2	3	1	3
115	2	2	2	2	1	1	2	1	2	1	3	3	1	3
116	1	1	1	1	0	0	1	2	1	1	1	0	1	1
117	2	1	2	1	0	0	1	1	1	0	1	2	1	1
118	1	1	2	2	1	1	1	2	2	1	2	2	1	1
119	1	1	2	2	1	1	2	2	1	1	2	2	1	1
120	2	2	3	2	1	1	2	2	2	2	3	2	2	1
121	3	2	2	2	1	1	2	3	2	1	3	3	2	3
122	1	0	1	1	0	0	1	0	1	0	1	1	1	0
123	2	1	2	2	1	1	2	2	1	2	3	1	2	2
124	2	1	2	2	1	1	1	2	1	1	2	1	2	1
125	2	1	2	2	1	1	1	2	1	1	2	1	1	1
126	1	2	2	1	1	1	1	1	1	1	2	1	3	3
127	2	2	2	2	1	1	2	2	1	1	2	2	2	3
128	3	2	3	2	2	3	2	2	2	2	3	2	2	3
129	1	1	1	1	0	1	0	1	1	1	1	0	0	1
130	2	1	2	2	1	1	1	1	2	2	2	2	1	1

131	2	2	2	2	1	1	1	1	2	1	1	2	2	1
132	2	2	2	2	1	1	2	2	1	1	2	0	0	1
133	2	1	2	1	1	1	1	1	1	1	1	1	2	1
134	1	1	1	0	0	1	1	0	1	0	1	2	1	3
135	2	1	2	2	1	1	2	2	1	2	3	2	2	2
136	2	2	2	2	1	1	2	2	1	1	2	2	1	2
137	1	1	2	1	0	1	1	2	1	1	1	1	1	1
138	2	2	3	2	1	1	2	2	2	2	3	2	2	1
139	2	1	2	1	1	1	2	2	1	2	2	2	1	2
140	2	2	2	2	1	1	2	1	2	1	2	2	1	1
141	3	2	2	2	3	0	2	1	1	1	2	0	0	1
142	2	1	1	1	2	1	2	1	2	1	2	0	2	2
143	2	1	3	1	1	2	3	1	0	2	2	0	0	1
144	3	2	2	2	2	3	3	1	1	1	2	1	0	1
145	1	0	1	1	0	0	0	0	0	0	1	0	0	1
146	2	2	2	2	1	1	1	1	2	1	2	2	1	1
147	2	1	2	2	2	1	2	2	2	1	2	2	2	1
148	1	2	1	1	1	0	1	1	2	1	2	1	0	1
149	2	1	1	2	1	1	2	1	2	1	2	2	2	2
150	1	2	1	1	1	0	1	1	0	0	1	0	1	1
151	2	3	2	2	2	1	2	2	2	1	3	3	2	2
152	1	2	1	1	1	0	1	1	1	1	1	1	1	1
153	1	1	1	1	1	0	1	0	0	0	1	1	0	0
154	2	2	2	2	2	1	3	1	2	1	2	2	2	1
155	1	2	1	1	1	0	1	1	1	1	2	2	2	1
156	2	2	1	2	1	1	1	2	2	1	3	1	2	1
157	2	2	2	2	2	1	2	2	2	2	2	2	2	2
158	3	2	3	2	2	1	2	2	1	1	3	2	1	2
159	1	1	0	1	1	0	1	1	1	1	1	0	1	0
160	3	3	3	2	2	1	2	1	2	2	2	3	2	2

161	2	2	1	1	1	0	1	1	1	1	1	2	2	1
162	1	1	1	1	1	0	1	1	1	1	1	2	2	1
163	1	2	1	2	1	0	1	1	2	1	1	1	1	1
164	2	0	1	1	1	0	2	2	1	1	2	0	1	1
165	3	2	3	2	1	2	2	3	2	1	3	3	1	3
166	1	1	1	1	1	1	2	1	1	1	1	1	2	1
167	3	3	3	2	2	1	3	2	2	3	3	3	2	2
168	3	3	2	3	2	2	3	1	2	2	3	3	0	2
169	3	2	3	2	2	1	3	2	3	2	2	3	1	3
170	2	2	3	2	2	3	2	3	2	2	3	2	2	3
171	3	3	3	2	1	1	2	2	2	2	3	2	1	2
172	2	2	2	2	2	1	2	2	2	1	3	0	2	2
173	1	1	2	2	1	0	2	2	2	1	3	2	2	2
174	2	2	3	2	2	0	2	2	2	1	2	2	1	2
175	2	2	2	2	2	2	2	2	2	1	2	3	2	2
176	1	1	2	1	1	1	1	1	1	1	1	2	1	1
177	1	2	2	1	0	0	1	1	1	1	2	2	2	1
178	1	1	2	2	1	1	2	2	2	2	1	2	1	2
179	2	1	2	2	1	1	1	2	2	2	3	3	2	2
180	2	2	3	2	2	2	1	1	2	1	1	2	2	1
181	2	1	2	1	1	1	2	1	1	1	2	1	1	1
182	1	2	2	2	2	1	2	1	2	1	2	3	2	3
183	2	2	3	2	1	1	2	1	1	1	3	0	2	1
184	2	2	2	2	1	2	3	2	2	1	2	3	2	3
185	2	3	3	2	1	1	3	2	1	1	3	2	2	2
186	2	1	2	2	1	1	1	1	1	1	2	2	1	2
187	3	2	3	2	2	0	2	2	2	2	2	0	1	1
188	3	2	3	2	2	1	2	2	1	2	2	2	1	1
189	2	2	2	2	1	1	2	2	1	1	2	0	1	1
190	2	1	3	2	2	1	2	2	2	1	3	2	2	1

191	3	3	2	2	2	1	3	2	2	1	2	0	2	2
192	2	1	2	2	1	1	2	1	1	2	1	2	1	3
193	2	2	2	3	2	2	1	2	2	1	2	2	2	2
194	2	2	3	2	2	1	1	1	1	2	1	2	3	2
195	1	2	2	2	1	1	2	1	1	2	2	1	2	1
196	2	2	3	2	2	1	2	1	2	2	3	2	3	3
197	2	3	3	2	2	1	2	2	2	2	3	0	1	1
198	1	1	2	1	0	2	1	2	2	2	2	2	2	2
199	1	1	2	1	1	1	2	2	2	1	2	1	1	1
200	3	2	3	3	2	1	3	2	1	2	3	2	2	2
201	2	2	2	2	1	1	1	1	2	1	2	3	1	3
202	2	2	3	2	2	1	2	1	2	1	2	0	2	3
203	2	1	2	1	1	0	1	1	1	1	2	2	1	2
204	2	1	1	1	0	2	0	1	1	0	1	1	1	0
205	2	2	3	2	1	1	2	2	2	1	3	2	2	1
206	1	2	1	2	1	1	1	2	2	2	2	2	2	1
207	1	2	2	1	0	0	2	1	0	1	2	0	1	1
208	2	2	2	2	2	1	2	2	2	2	1	2	2	1
209	2	2	3	2	1	1	3	2	2	1	2	0	1	1
210	1	1	1	0	1	1	1	1	1	1	2	0	2	0
211	2	2	3	2	2	1	1	2	2	2	3	1	2	2
212	2	1	0	0	1	1	2	2	1	2	1	0	1	1
213	2	2	3	2	1	1	2	2	2	1	3	2	2	1
214	2	2	2	1	1	1	1	1	1	1	2	0	2	1
215	2	2	2	2	1	1	2	2	2	1	3	2	2	2
216	1	2	2	2	1	1	1	2	2	2	2	1	1	1
217	3	2	2	2	1	1	1	2	2	1	3	2	3	3
218	2	2	2	2	1	0	2	1	1	1	3	2	1	1
219	1	2	2	1	0	1	2	2	2	1	2	1	0	1
220	3	3	3	2	1	1	3	2	2	2	2	1	2	3

221	2	1	2	2	2	1	1	2	1	2	2	2	1	2
222	2	1	2	2	1	2	1	2	2	1	3	2	3	1
223	2	2	2	2	1	2	1	2	2	1	1	2	1	1
224	1	1	2	2	1	1	2	1	1	2	2	2	1	1
225	3	2	3	2	1	0	2	1	1	1	3	0	0	1
226	3	2	2	2	0	1	1	1	1	1	3	0	1	1
227	2	2	2	2	1	1	1	2	3	2	1	1	2	2
228	1	2	2	2	1	0	2	1	2	1	2	0	1	1
229	1	2	2	2	1	1	2	1	1	2	2	0	0	1
230	2	2	2	2	1	1	2	3	2	2	3	2	2	2
231	1	2	2	2	1	1	1	1	1	1	2	1	1	1
232	2	2	2	2	1	1	1	1	1	2	2	2	2	2
233	1	1	2	1	1	1	1	2	2	2	1	0	1	1
234	1	1	1	1	0	1	1	2	1	1	2	2	1	1
235	2	2	2	1	0	2	2	1	1	1	2	2	0	1
236	2	1	1	2	1	1	2	2	1	1	3	2	1	1
237	3	2	3	2	1	1	2	2	2	2	3	3	2	1
238	1	1	0	1	1	1	1	1	1	0	2	0	0	1
239	2	2	3	2	2	1	2	2	2	2	3	2	1	2
240	2	2	3	2	1	1	2	3	2	2	3	1	2	1
241	2	1	2	2	1	1	1	2	1	1	3	2	1	1
242	2	3	2	2	1	1	1	2	1	2	1	1	1	1
243	2	1	2	2	1	1	2	2	2	1	2	1	1	1
244	1	1	1	1	1	1	1	0	0	0	1	0	0	0
245	2	1	2	1	1	0	2	1	1	1	1	1	1	2
246	2	2	2	2	2	1	2	2	2	1	3	2	1	2
247	1	1	2	2	1	1	2	1	1	1	2	2	1	1
248	2	2	3	1	1	2	2	1	2	1	2	2	1	1
249	1	2	2	2	1	1	2	2	2	1	2	2	1	2
250	1	1	2	2	1	1	1	1	1	1	1	2	2	1

251	2	2	2	2	1	1	1	1	2	2	1	1	1	1
252	2	2	2	2	1	1	2	2	2	1	3	1	1	1
253	2	1	2	2	2	1	2	1	1	1	2	3	1	3
254	2	2	2	2	1	1	2	1	2	1	3	3	1	3
255	1	1	1	1	1	0	1	2	1	1	1	0	1	1
256	2	1	2	1	0	0	1	1	1	0	1	2	1	0
257	1	2	2	2	1	1	1	2	2	1	2	2	1	1
258	3	1	2	2	1	1	2	2	1	1	2	2	1	1
259	2	2	3	2	1	1	2	2	2	2	3	0	2	1
260	3	2	3	2	1	1	2	3	2	1	2	2	2	2
261	1	0	1	1	0	0	1	1	1	0	1	1	1	0
262	2	1	2	2	1	1	2	1	1	2	2	1	1	2
263	2	3	3	2	1	1	1	2	2	1	2	1	2	1
264	2	1	2	2	1	1	1	2	2	1	2	1	1	1
265	1	2	2	1	1	1	1	0	0	1	2	0	2	2
266	2	2	2	2	1	1	2	2	1	1	2	2	2	3
267	3	2	3	2	2	3	2	2	2	2	3	2	2	3
268	1	1	1	1	0	1	0	1	1	1	1	0	0	1
269	1	1	1	1	1	1	1	1	1	1	2	0	1	1
270	2	2	2	2	1	1	1	1	1	1	1	2	2	1
271	2	2	2	2	1	1	2	2	1	1	2	0	0	1
272	2	2	2	1	1	1	1	1	1	1	1	1	2	1
273	1	1	0	1	0	1	1	0	1	0	1	2	1	3
274	2	1	2	2	1	1	2	2	1	2	3	2	2	2
275	2	2	2	2	1	1	2	2	1	1	2	2	2	2
276	1	1	2	1	0	1	1	2	1	1	1	1	1	1
277	3	2	3	2	1	1	2	2	2	2	3	2	2	1
278	2	2	2	1	1	1	2	2	2	2	2	2	1	2
279	1	2	3	2	2	1	2	2	1	1	2	0	2	1
280	1	2	1	1	1	2	1	1	2	1	2	1	2	1

281	2	2	3	2	2	1	1	2	1	2	2	2	2	3
282	1	1	0	1	1	1	1	2	1	1	2	0	1	1
283	1	2	1	2	1	1	1	2	1	1	3	3	2	3
284	2	3	3	2	2	1	1	2	2	2	3	0	2	2
285	1	2	1	2	1	1	2	1	2	1	2	2	2	2
286	1	2	2	1	1	2	1	1	1	1	2	2	1	1
287	2	3	2	2	2	1	2	2	2	2	3	3	2	1
288	1	2	1	1	1	2	1	1	0	1	2	0	1	0
289	3	2	2	2	1	1	1	2	2	1	3	3	3	2
290	2	2	2	2	1	2	1	1	2	1	2	2	2	2
291	2	3	3	2	2	2	2	2	1	2	3	3	3	2
292	1	2	2	1	1	1	1	1	1	1	2	0	1	1
293	1	2	2	2	2	1	2	2	1	1	2	0	2	1
294	1	2	0	1	1	2	1	1	2	1	2	1	2	1
295	2	3	3	2	2	1	2	2	1	2	2	2	2	3
296	1	1	0	1	1	1	1	2	1	1	2	3	1	1
297	3	2	1	2	1	1	1	2	1	1	3	3	2	2
298	3	3	2	2	2	1	2	2	2	2	3	0	2	2
299	2	2	1	2	1	1	2	1	2	1	3	2	2	3
300	1	2	2	1	1	2	1	1	1	1	2	2	1	1
301	3	3	3	2	2	1	2	2	2	2	3	3	3	1
302	1	2	0	1	1	1	1	1	0	1	2	0	1	0
303	3	2	3	2	1	2	2	2	2	1	3	3	3	1
304	2	2	1	2	1	2	1	1	2	1	2	0	1	2
305	2	3	3	2	2	2	2	1	1	2	2	3	3	2
306	2	2	1	2	1	1	2	2	2	1	3	0	2	2
307	1	2	0	1	1	0	1	1	1	1	1	0	1	0